THE SALINITY INTRUSION IN THE FRASER RIVER: TIME SERIES OF SALINITIES, TEMPERATURES AND CURRENTS 1978,1979

A. Ages

Institute of Ocean Sciences
Department of Fisheries and Oceans
Sidney, B.C.

1988

CANADIAN DATA REPORT OF HYDROGRAPHY AND OCEAN SCIENCES NO. 66

Canada

89-00686/

Canadian Data Report Of Hydrography and Ocean Sciences

These reports provide a medium for the documentation and dissemination of data in a form directly useable by the scientific and engineering communities.

Generally, the reports will contain raw and/or analyzed data but will not contain interpretations of the data. Such compilations will commonly have been prepared in support of work related to the programs and interests of the Ocean Science and Surveys (OSS) sector of the Department of Fisheries and Oceans.

Data Reports are produced regionally but are numbered and indexed nationally. Requests for individual reports will be fulfilled by the issuing establishment listed on the front cover and title page. Out of stock reports will be supplied for a fee by commercial agents.

Regional and headquarters establishments of Ocean Science and Surveys ceased publication of their various report series as of December 1981. A complete listing of these publications and the last number issued under each title are published in the *Canadian Journal of Fisheries and Aquatic Sciences*, Volume 38: Index to Publications 1981. The current series began with Report Number 1 in January 1982.

Rapport statistique canadien sur l'hydrographie et les sciences océaniques

Ces rapports servent de véhicule pour la compilation et la diffusion des données sous une forme directement utilisable par les scientifiques et les techniciens.

En général, les rapports contiennent des données brutes ou analysées mais ne fournissent pas d'interprétations des données. Ces compilations sont préparées le plus souvent à l'appui de travaux reliés aux programmes et intérêts du service des Sciences et Levés océaniques (SLO) du ministère des Pêches et des Océans.

Les rapports statistiques sont produits à l'échelon régional mais sont numérotés et placés dans l'index à l'échelon national. Les demandes de rapports seront satisfaites par l'établissement auteur dont le nom figure sur la couverture et la page de titre. Les rapports épuisés seront fournis contre rétribution par des agents commerciaux.

Les établissements des Sciences et Levés océaniques dans les régions et à l'administration centrale ont cessé de publier leurs diverses séries de rapports depuis décembre 1981. Vous trouverez dans l'index des publications du volume 38 du *Journal canadien des sciences halieutiques et aquatiques*, la liste de ces publications ainsi que le dernier numéro paru dans chaque catégorie. La nouvelle série a commencé avec la publication du Rapport n° 1 en janvier 1982.

Canadian Data Report of
Hydrography and Ocean Sciences 66
1988

THE SALINITY INTRUSION IN THE FRASER RIVER: TIME SERIES OF SALINITIES, TEMPERATURES AND CURRENTS 1978, 1979

A. Ages

Institute of Ocean Sciences
Department of Fisheries and Oceans
Sidney, B.C. V8L 4B2

© Minister of Supply and Services Canada 1988
Cat. No. FS 97-16/66 ISSN 0711-6721

Correct citation for this publication:

Ages, A.B. 1988. The Salinity Intrusion in the Fraser River: Time Series of Salinities, Temperatures and Currents 1978, 1979. Can. Data Rep. Hydrogr. Ocean Sci. 66.

CONTENTS

Abstract/Résumé iv

Acknowledgements v

Introduction 1

Observations 2

Instrumentation 2

Locations of Time Series 3

Time Series of Salinities, Temperatures, Currents 4-186

January 4 - 5, 1978	Buoy S21	4-14
January 5 - 6, 1978	Buoy S32	15-42
January 12-13, 1978	Pattullo Bridge	43-59
February 8-9, 1978	Buoy S32	60-79
February 9-10, 1978	Buoy S34	80-95
April 19-21, 1978	Oak Street Bridge	96-144
April 21, 1978	Entrance North Arm	145-148
June 5 - 6, 1978	Buoy S21	149-178
January 23, 1979	Musqueam	179-186

References 187

ABSTRACT

Detailed time series to measure salinities, temperatures and current velocities were carried out in the delta of the Fraser River through 1978 and in January 1979.

The results are presented in tables and profile plots.

Keywords; Fraser River, currents, salinities, temperatures.

RESUME

Des séries chronologiques de détail ont été effectuées pour mesurer les salinités, les températures et les courants dans le delta du Fraser en 1978, et en janvier 1979.

Les données sont présentées dans des tableaux et sur des profils verticaux.

Mot-clés; Fleuve Fraser, courants, salinités, températures.

ACKNOWLEDGEMENTS

The time series were taken from the VECTOR (Institute of Ocean Sciences) and BASTION CITY (Charter); the cooperation of Captains Marston and Littlejohn and their crews is appreciated.

The assistance of Janice Bruce and Stuart Langton in the fieldwork is gratefully acknowledged and thanks are due to Keith Lee, Anne Woollard, Di Tran and Georg Jorgensen for their computer analysis and plotting, and to Sharon Thomson for proofreading the text.

INTRODUCTION

This report is a sequel to Pacific Marine Science Report 79-14 which covered salinity, temperature and some current observations in 1976 and 1977. The observations, their rationale and instrumentation were discussed in that publication and will be reviewed here only briefly.

A comprehensive study of the behaviour of the salinity intrusion in the Fraser was prompted by the increasing demand for accurate information on the flow distribution.

Where most of the 1976 and 1977 data had been pertinent to salinity and temperature measurements in longitudinal sections, it was not until the end of 1977 that the acquisition of an electromagnetic directional current meter made it possible to include water velocity as a parameter, and commence detailed time series from an anchored vessel. The stations were occupied jointly with the Water Quality Branch of Inland Waters Directorate at Vancouver to support their field program with coincidental measurements of salinity and water velocity profiles.

Some of the stations (e.g. S21) were occupied several times in 1977 and 1978, to provide a multi-layer numerical model (being developed at Institute of Ocean Sciences) with data sets at a variety of discharges and tides.

OBSERVATIONS

The time series in the Main Arm were obtained from the VECTOR (Institute of Ocean Sciences), those in the shallower North Arm from the BASTION CITY (Charter). Both vessels had to be anchored outside the navigation channel in somewhat shallower waters. Since the toe of the salt wedge advances faster and further in the deeper part of the channel, an analysis of the time series should perhaps focus more upon the distribution of the parameters measured during the passage of the salt wedge than on the speed of propagation or the limit of intrusion. These aspects were examined later from a launch operating in the thalweg and will be covered in a following publication.

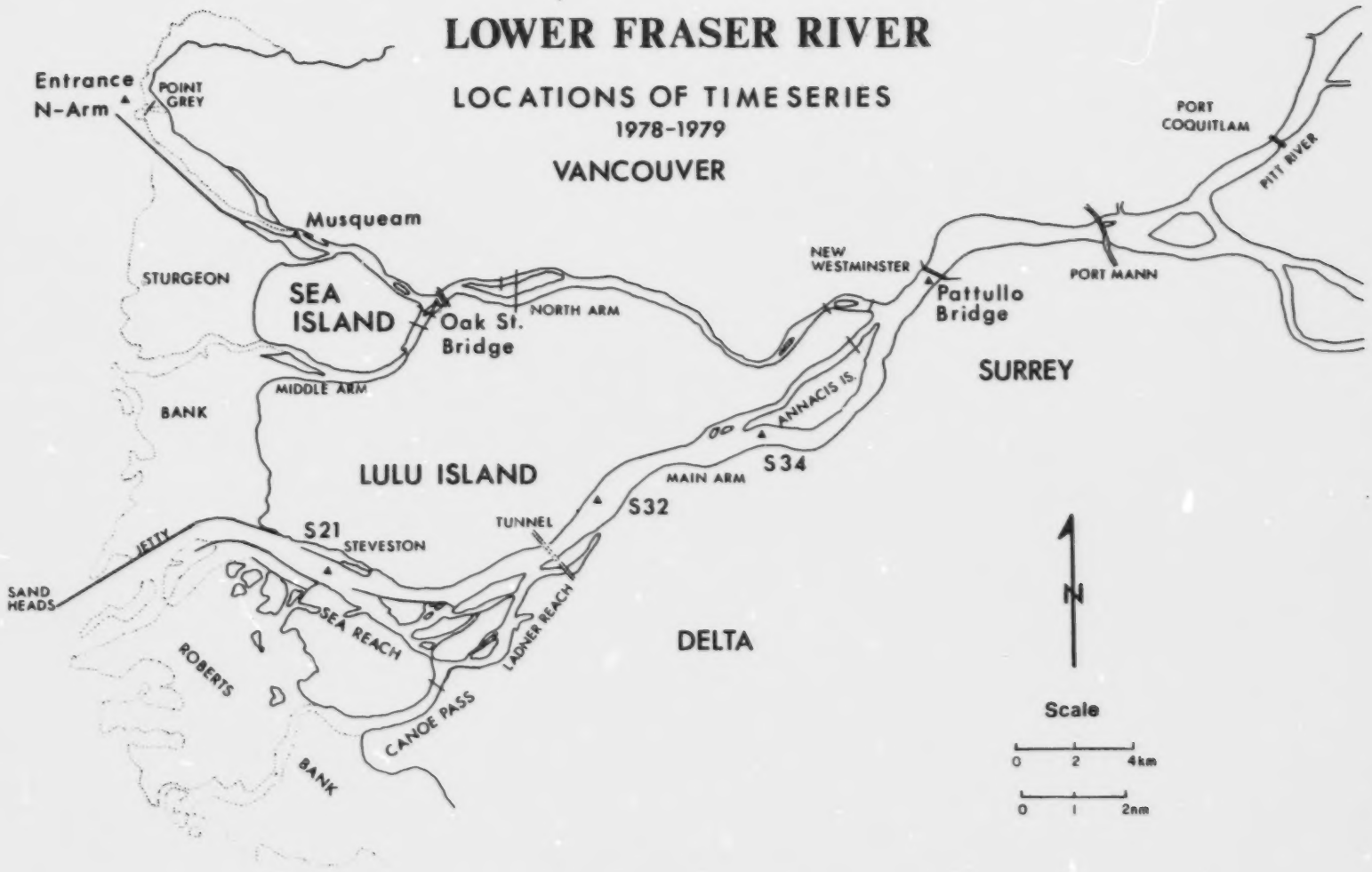
NOTE: Some of the directions in the current data were discarded because of the influence of the ship's magnetic field upon the compass. These directions are indicated by ***.

INSTRUMENTATION

The Interocean salinometer and Marsh-McBirney current meter were the same units deployed during the previous year and are described in Pacific Marine Science Report 79-14.

ALTERNATIVE MEDIA

These data are also available on 5 1/4 inch IBM-PC disks for a nominal fee, on request to the Institute of Ocean Sciences.


LOWER FRASER RIVER
LOCATIONS OF TIME SERIES
1978-1979
VANCOUVER
Entrance
N-Arm
POINT GREY
Musqueam
STURGEON
SEA ISLAND
Oak St. Bridge
NORTH ARM
MIDDLE ARM
BANK
LULU ISLAND
S21
STEVESTON
JETTY
SAND HEADS
TUNNEL
S32
MAIN ARM
S34
ANNACIS IS.
NEW WESTMINSTER
Pattullo Bridge
SURREY
PORT MANN
PORT COQUITLAM
PITT RIVER
SEA REACH
LADNER REACH
ROBERTS BANK
CANOE PASS
DELTA
N
Scale
0 2 4km
0 1 2nm

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JAN 4-5/78 RIVER DISCHARGE AT HOPE = 930 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
22H 45M	0.0	7.00	2.0	0.66		290
	1.0	7.20	2.0			
	2.0	7.50	2.0	0.58	150	
	3.0	7.80	2.0			
	4.0	8.50	2.1	0.30	200	
	5.0	10.10	2.3			
	6.0	10.40	2.6	0.14	200	
	7.0	10.50	2.6			
	8.4	10.70	2.7	0.22	100	
23H 30M	0.0	6.90	1.7			
	1.0	7.50	1.8			
	2.0	8.50	2.0			
	3.0	8.70	2.1			
	4.0	9.00	2.1			
	5.0	9.60	2.3			
	6.0	10.20	2.4			
	7.0	10.80	2.5			
	8.0	10.80	2.6			
	8.5	10.80	2.6			
00H 00M	0.0	8.50	2.0			
	1.0	8.50	2.0			
	2.0	8.50	2.0			
	3.0	8.50	2.0			
	4.0	9.00	2.1			
	5.0	9.80	2.3			
	6.0	10.50	2.5			
	7.0	10.70	2.5			
	7.9	10.80	2.5			
00H 30M	0.0	7.80	1.9	0.03	070	
	1.0	7.80	2.0	0.04	070	
	2.0	8.10	2.0	0.04	160	
	3.0	8.50	2.1	0.20	150	
	4.0	9.40	2.2	0.32	180	
	5.0	10.00	2.4	0.41	160	
	6.0	10.40	2.5	0.49	160	
	7.0	11.10	2.5	0.46	160	
	8.3	11.10	2.5	0.40	130	
01H 00M	0.0	8.10	1.8	0.31	140	
	1.0	10.00	2.2	0.31	140	
	2.0	10.80	2.6	0.21	140	
	3.0	11.20	2.7	0.19	090	
	4.0	11.20	2.7	0.43	110	
	5.0	11.20	2.7	0.57	100	

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JAN 4-5/78 RIVER DISCHARGE AT HOPE = 930 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
01H 00M	6.0	11.20	2.7	0.45	110	
	7.0	11.30	2.7	0.44	110	
	8.0	11.30	2.7	0.46	110	
	9.0	11.30	2.7	0.43	110	
01H 30M	0.0	7.30	1.8	0.27	120	
	1.0	9.70	2.3	0.30	100	
	2.0	10.90	2.7	0.50	120	
	3.0	11.00	2.7	0.50	120	
	4.0	11.50	2.8	0.51	120	
	5.0	12.20	2.9	0.54	120	
	6.0	12.60	3.0	0.53	110	
	7.0	15.00	3.4	0.44	110	
	8.0	21.30	4.8	0.38	130	
	8.8	21.40	4.9	0.16	100	
02H 00M	0.0	9.10	1.8	0.25	140	
	1.0	10.60	2.4			
	2.0	11.00	2.7	0.38	120	
	3.0	11.90	2.9	0.38	120	
	4.0	13.10	3.0	0.44	140	
	5.0	13.80	3.2	0.48	120	
	6.0	19.40	4.4	0.55	130	
	7.0	23.40	5.1	0.57	130	
	8.0	23.80	5.4	0.51	130	
	9.0	24.20	5.4	0.44	120	
	9.5			0.31	120	
02H 30M	0.0	9.90	2.1	0.27	110	
	1.0	9.90	2.4	0.25	120	
	2.0	10.50	2.4	0.25	130	
	3.0	11.00	2.6	0.31	110	
	4.0	12.40	3.0	0.43	120	
	5.0	21.70	3.2	0.50	120	
	6.0	25.00	5.2	0.58	130	
	7.0	25.30	5.5	0.49	130	
	8.0	25.30	5.5	0.49	140	
	9.0			0.49	140	
	9.3	25.50	5.5			
03H 00M	0.0	10.80	2.0	0.24	100	
	1.0	11.50	2.6			
	2.0	11.70	2.7	0.27	130	
	3.0	12.00	2.8			
	4.0	12.70	2.9	0.25	130	
	5.0	25.00	3.7	0.37	120	
	6.0	25.50	5.3	0.52	130	

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JAN 4-5/78 RIVER DISCHARGE AT HOPE = 930 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
03H 00M	7.0	26.00	5.5	0.52	130	
	8.0	26.00	5.5	0.47	130	
	9.0	26.00	5.6	0.39	130	
03H 30M	0.0	11.20	1.0	0.14	110	
	1.0	11.20	2.6			
	2.0	11.90	2.8	0.06	110	
	3.0	13.70	3.1			
	4.0	14.80	3.3	0.17	140	
	5.0	23.00	4.3	0.45	130	
	6.0	25.80	5.4	0.46	140	
	7.0	25.80	5.4			
	8.0	25.80	5.5	0.24	140	
	9.0	25.80	5.5	0.28	150	
	9.5	25.80	5.5	0.28	150	
04H 00M	0.0	13.50	2.4	0.06	120	
	1.0	13.50	3.0			
	2.0	13.50	3.0	0.09		360
	3.0	14.00	3.1	0.27	090	
	4.0	19.50	3.4	0.24	080	
	5.0	25.80	5.2	0.38	100	
	6.0	26.10	5.4	0.38	130	
	7.0	26.20	5.4	0.37	120	
	8.0	26.20	5.4	0.33	120	
	9.0			0.27	130	
	9.2	26.20	5.4			
04H 30M	0.0	11.50	1.8	0.03		300
	1.0	12.50	2.8			
	2.0	13.50	3.0	0.03		260
	3.0	14.00	3.1	0.27	060	
	4.0	16.50	3.2	0.25	070	
	5.0	25.30	4.6	0.43	100	
	6.0	27.20	5.3	0.43	120	
	7.0	27.20	5.5			
	8.0	27.20	5.5	0.43	120	
	9.0	27.20	5.5			
	9.5	27.20	5.5	0.25	130	
05H 00M	0.0	13.00	2.7	0.07		250
	1.0	15.00	3.1			
	2.0	15.50	3.3	0.14		020
	3.0	15.70	3.4	0.22		010
	4.0	17.90	3.6	0.39		010
	5.0	25.70	4.6	0.44	060	
	6.0	27.00	5.2	0.44	090	

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JAN 4-5/78 RIVER DISCHARGE AT HOPE - 930 CU.M/SEC

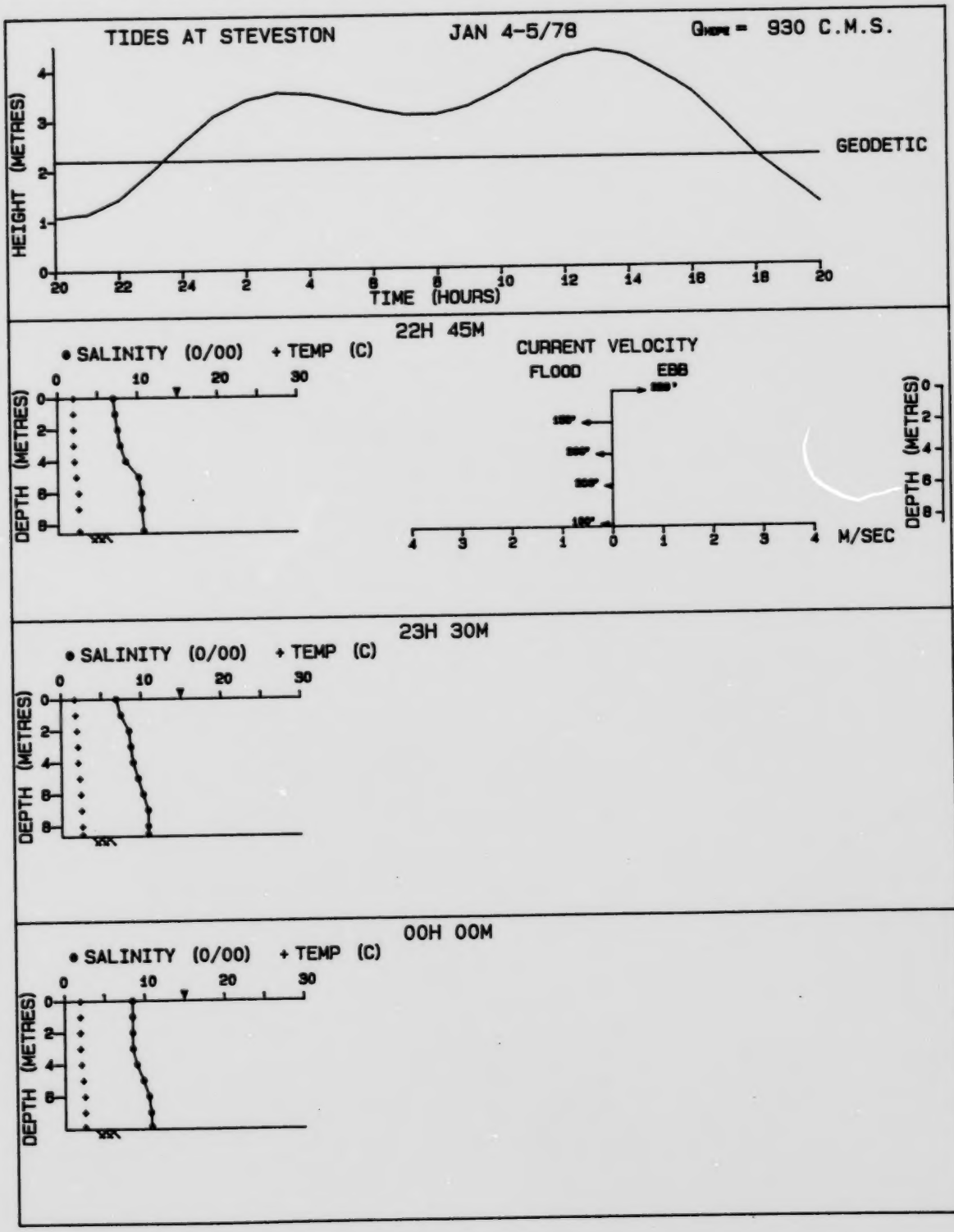
TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
05H 00M	7.0	27.00	5.4	0.39	090	
	8.0	27.00	5.5	0.33	080	
	9.0	27.00	5.6	0.33	080	
	10.0	27.00	5.6	0.27	090	
05H 30M	0.0	13.00	2.7	0.20		220
	1.0	13.80	3.0			
	2.0	15.00	3.2	0.14	180	
	3.0	18.40	3.7	0.17	200	
	4.0	23.20	4.5	0.30	050	
	5.0	25.30	4.9	0.33	050	
	6.0	26.50	5.4	0.33	070	
	7.0	26.80	5.5			
	8.0	27.30	5.6	0.27	030	
	9.0	27.50	5.7			
	10.0	27.70	5.7	0.22	110	
06H 00M	0.0	10.50	2.2	0.44		220
	1.0	10.50	2.3			
	2.0	16.00	3.2	0.39	140	
	3.0	18.90	3.9			
	4.0	22.00	4.3	0.27	100	
	5.0	25.00	4.8			
	6.0	27.50	5.3	0.27	100	
	7.0	28.20	5.5			
	8.0	28.20	5.7	0.27	100	
	9.0	28.20	5.7			
	9.6	28.20	5.7	0.24	090	
06H 30M	0.0	10.10	2.2	0.43		240
	1.0	12.00	2.2			
	2.0	18.30	3.6	0.37	160	
	3.0	21.50	4.2	0.06		270
	4.0	23.50	4.4	0.24		280
	5.0	27.00	5.2			
	6.0	28.00	5.5	0.24	070	
	7.0	28.20	5.7	0.19	090	
	8.0	28.20	5.7	0.18	070	
	9.0	28.20	5.8	0.14	060	
	10.0	28.20	5.8	0.14	050	
07H 00M	0.0	10.20	2.2	0.58		260
	1.0	13.00	2.4			
	2.0	20.00	3.8	0.31	170	
	3.0	23.30	4.1			
	4.0	26.00	4.8	0.09	090	
	5.0	27.30	5.1			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

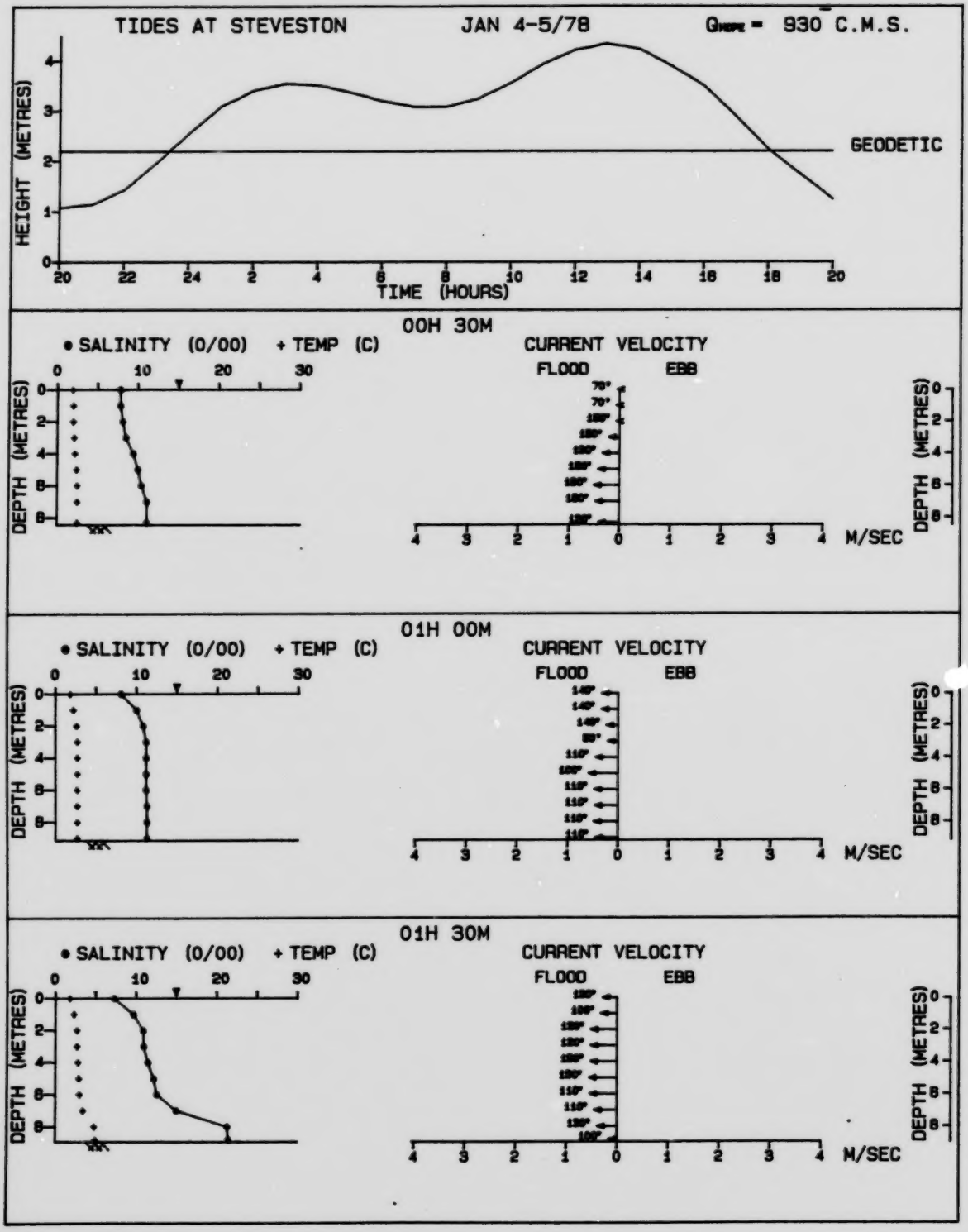
JAN 4-5/78 RIVER DISCHARGE AT HOPE = 930 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
07H 00M	6.0	27.60	5.4	0.12	050	
	7.0	27.90	5.6			
	8.0	27.90	5.8	0.22	090	
	9.0	27.90	5.8			
	9.5	27.90	5.8	0.09	090	
07H 30M	0.0	11.00	2.2	0.55		240
	1.0	18.20	3.2	0.49	190	
	2.0	24.50	4.6	0.49	150	
	3.0	24.70	4.7	0.46	150	
	4.0	25.90	5.0	0.09	110	
	5.0	26.70	5.3	0.09	050	
	6.0	27.70	5.5	0.06	090	
	7.0	28.00	5.8	0.06	090	
	8.0	28.00	5.8	0.06	080	
	9.0	28.10	5.8	0.07	100	
	9.5	28.10	5.8	0.06	090	

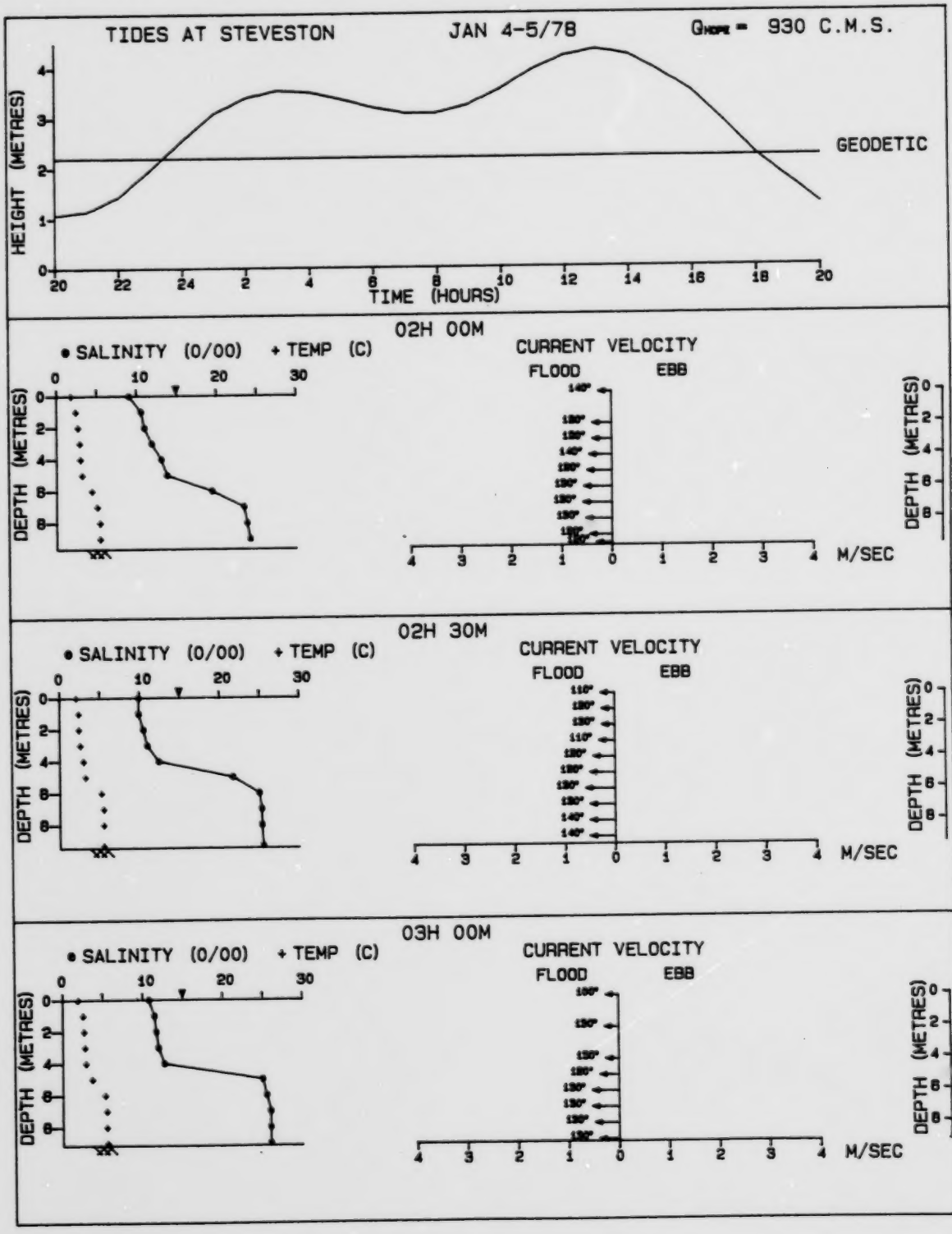
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



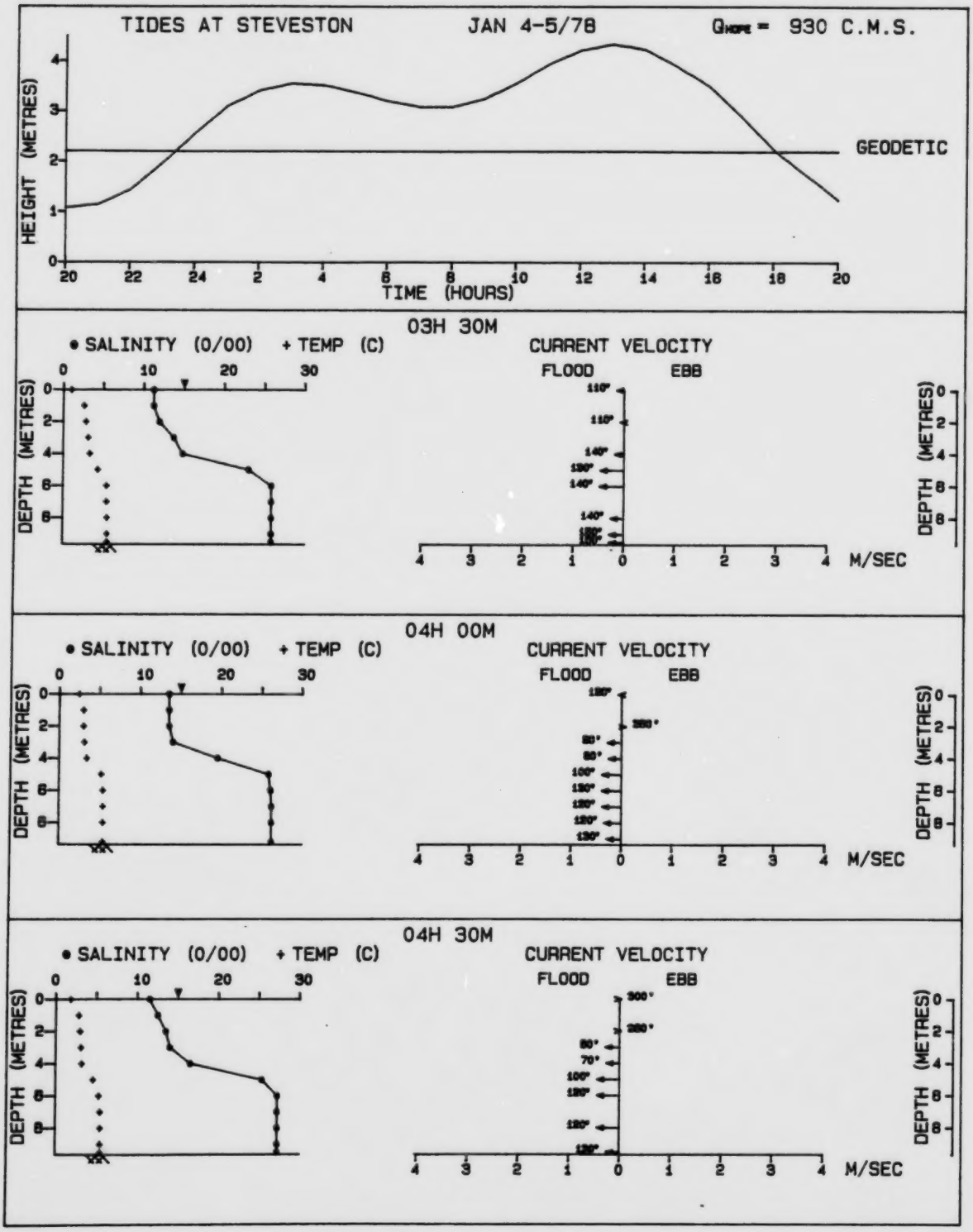
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



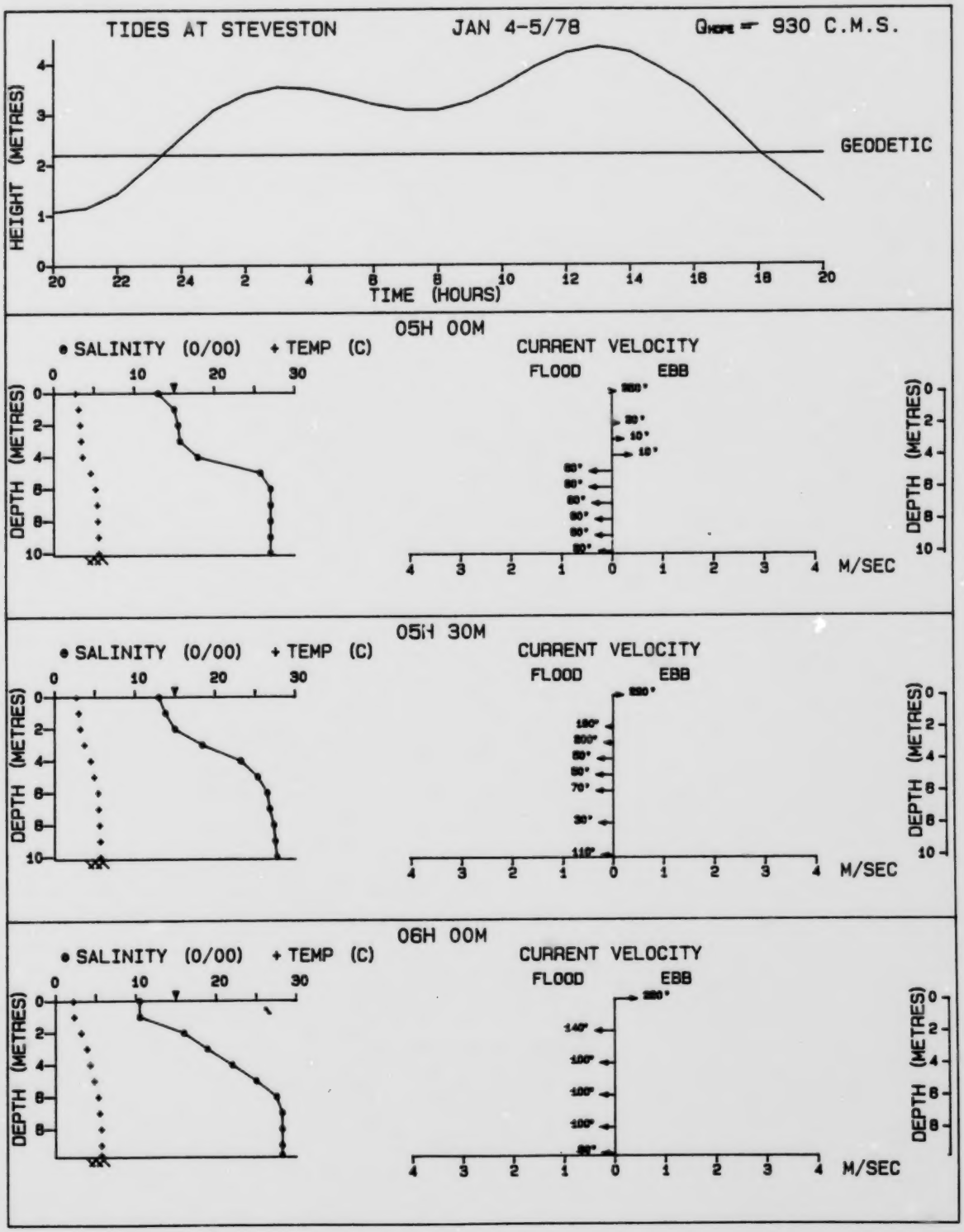
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



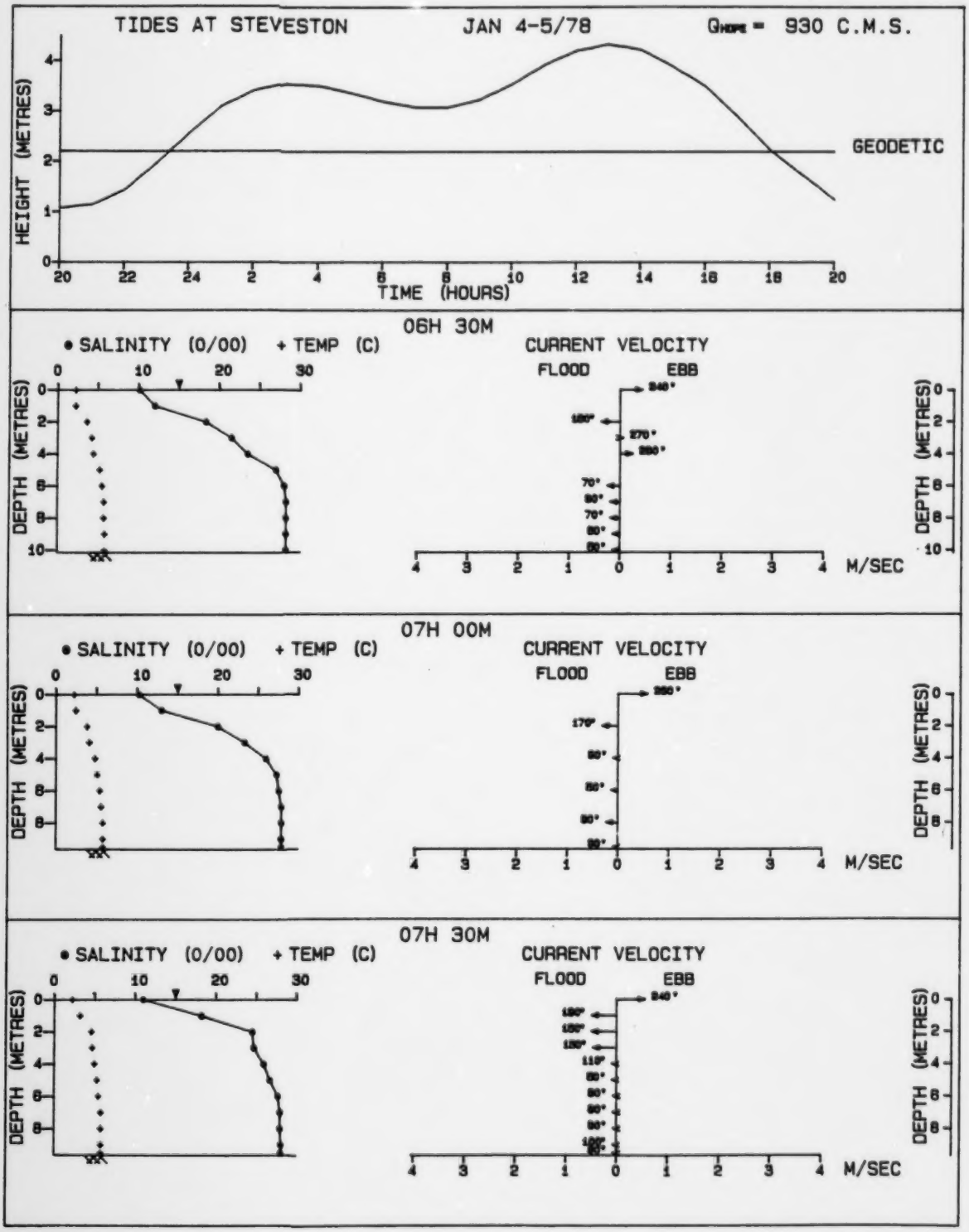
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

JAN 5-6/78 RIVER DISCHARGE AT HOPE = 980 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
09H 10M	0.0	0.50	0.3	0.49		190
	1.0	1.00	0.8	0.49		170
	2.0	4.80	1.1	0.47		150
	3.0	5.50	1.3	0.41		140
	4.0	6.80	1.4	0.34		140
	5.0	8.00	1.7	0.18		140
	6.0	8.70	1.9	0.03	340	
	7.0	10.10	2.3	0.12	340	
	8.0	11.60	2.4	0.25	360	
	9.0	13.20	2.7	0.25	350	
	9.5	13.20	3.0	0.24	010	
09H 30M	0.0	0.60	0.3	0.46		200
	1.0	1.60	0.4	0.47		180
	2.0	4.20	1.0	0.40		150
	3.0	4.50	1.1	0.37		140
	4.0	5.80	1.3	0.38		160
	5.0	7.00	1.6	0.14	080	
	6.0	8.00	1.8	0.14	030	
	7.0	9.00	2.2	0.23	360	
	8.0	9.50	2.3	0.21	020	
	9.3	14.50	3.3	0.30	070	
10H 00M	0.0	1.00	0.4	0.41		190
	1.0	3.00	1.0	0.44		160
	2.0	3.20	0.7	0.37		150
	3.0	5.00	1.0	0.31	130	
	4.0	6.20	1.1	0.11	100	
	5.0	6.50	1.2	0.11	340	
	6.0	8.20	1.7	0.15	000	
	7.0	10.80	2.0	0.28	010	
	8.0	17.60	3.5	0.43	010	
	9.0	19.00	4.1	0.37	040	
	9.5	19.00	4.1	0.18	050	
10H 30M	0.0	1.00	0.4	0.34		180
	1.0	1.80	0.5	0.34		150
	2.0	3.20	0.7	0.31	130	
	3.0	4.00	0.9	0.25	120	
	4.0	5.40	1.2	0.09	330	
	5.0	5.60	1.3	0.16	340	
	6.0	6.50	1.4	0.18	330	
	7.0	12.40	2.7	0.31	010	
	8.0	17.20	3.5	0.49	020	
	9.0	18.60	4.0	0.37	020	
	9.6	19.20	4.1	0.18	060	

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

JAN 5-6/78 RIVER DISCHARGE AT HOPE = 980 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
11H 00M	0.0	1.50	0.5	0.04		260
	1.0	3.40	0.7	0.00	000	
	2.0	4.10	0.9	0.03		280
	3.0	4.40	1.0	0.03		290
	4.0	4.50	1.0	0.16	320	
	5.0	4.80	1.1	0.21	330	
	6.0	8.50	1.2	0.27	010	
	7.0	13.20	2.7	0.49	340	
	8.0	15.00	3.3	0.46	020	
	9.0	20.80	4.2	0.43	050	
	10.4	23.50	4.7	0.22	070	
11H 30M	0.0	2.00	0.6	0.11		210
	1.0	2.70	0.6	0.00	000	
	2.0	2.90	0.7	0.10	000	
	3.0	3.00	0.7	0.16	330	
	4.0	3.40	0.8	0.24	320	
	5.0	3.70	0.9	0.27	330	
	6.0	6.80	1.4	0.44	350	
	7.0	13.80	2.7	0.59	020	
	8.0	21.80	4.4	0.58	030	
	9.0	22.50	4.7	0.56	040	
	10.0	22.70	4.8	0.34	050	
	10.8	22.70	4.9	0.33	040	
12H 00M	0.0			0.00	000	
	1.0			0.04	070	
	2.0			0.04	020	
	3.0			0.13		200
	4.0			0.19		260
	5.0			0.41	060	
	6.0			0.55	020	
	7.0			0.61	030	
	8.0			0.56	040	
	9.0			0.44	040	
	10.0			0.41	050	
	11.0			0.27	040	
12H 35M	0.0	1.70	0.6	0.20	060	
	1.0	1.70	0.6	0.20	060	
	2.0	1.70	0.6	0.15	060	
	3.0	4.00	0.9	0.29	070	
	4.0	8.50	1.6	0.49	090	
	5.0	9.50	2.2	0.55	080	
	6.0	11.00	2.5	0.47	070	
	7.0	22.80	3.4	0.61	070	
	8.0	24.00	4.9	0.49	070	

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

JAN 5-6/78 RIVER DISCHARGE AT HOPE - 980 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
12H 35M	9.0	24.10	5.0	0.55	060	
	10.0	24.10	5.1	0.43	060	
	11.0	24.10	5.1	0.37	060	
13H 05M	0.0	1.70	0.6	0.16	060	
	1.0	1.80	0.6	0.16	080	
	2.0	2.50	0.7	0.22	100	
	3.0	4.50	0.9	0.30	100	
	4.0	11.50	1.8	0.46	090	
	5.0	12.30	2.7	0.49	100	
	6.0	13.40	2.8	0.51	080	
	7.0	23.00	3.4	0.49	070	
	8.0	25.00	4.8	0.43	080	
	9.0	25.00	5.1	0.47	090	
	10.0	25.00	5.1	0.40	070	
	11.0	25.00	5.1	0.30	070	
13H 30M	0.0	2.10	0.7	0.18	070	
	1.0	2.10	0.7	0.19	050	
	2.0	2.60	0.7	0.15	090	
	3.0	4.50	1.0	0.22	110	
	4.0	8.00	2.0	0.37	110	
	5.0	14.70	3.0	0.55	060	
	6.0	15.00	3.4	0.46	080	
	7.0	23.00	4.6	0.43	060	
	8.0	26.00	5.2	0.37	080	
	9.0	26.00	5.2	0.47	060	
	10.0	26.00	5.2	0.37	070	
	11.0			0.31	070	
	11.3	26.00	5.2			
14H 00M	0.0	2.50	0.8	0.07	030	
	1.0	2.60	0.8	0.07	100	
	2.0	3.00	0.9	0.14	100	
	3.0	4.50	1.4	0.27	100	
	4.0	7.50	2.2	0.37	110	
	5.0	14.50	3.1	0.52	120	
	6.0	17.00	3.5	0.37	070	
	7.0	26.60	4.8	0.43	080	
	8.0	27.20	5.3	0.39	070	
	9.0	27.20	5.3	0.39	070	
	10.0	27.20	5.3	0.37	090	
	10.9	27.20	5.3	0.30	070	
14H 30M	0.0	1.00	0.8	0.04	350	
	1.0	3.40	0.8	0.06	030	
	2.0	5.30	1.0	0.07		150

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

JAN 5-6/78 RIVER DISCHARGE AT HOPE = 980 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
14H 30M	3.0	6.50	1.0	0.29	120	
	4.0	10.00	1.7	0.43		150
	5.0	14.00	2.6	0.46		150
	6.0	18.00	3.3	0.32	040	
	7.0	19.70	3.6	0.37	030	
	8.0	25.20	4.4	0.36	040	
	9.0	26.90	5.1	0.31	050	
	10.0	26.90	5.2	0.33	030	
	11.0	26.90	5.2	0.16	070	
	12.0	26.90	5.2			
	12.8	26.90	5.2			
15H 00M	0.0	4.00	1.1	0.13		170
	1.0	4.60	1.1	0.04	060	
	2.0	6.50	1.2	0.03		160
	3.0	7.00	1.3	0.06		160
	4.0	7.50	1.4	0.19		240
	5.0	16.30	2.3	0.27		240
	6.0	18.00	3.5	0.22		300
	7.0	23.00	3.8	0.31	320	
	8.0	25.30	4.8	0.30	350	
	9.0	27.00	5.1	0.28	020	
	10.0	27.00	5.2	0.19	010	
	11.0	27.00	5.2	0.15	030	
	12.0	27.00	5.2	0.16	040	
	13.0	27.00	5.2			
15H 30M	0.0	3.00	0.9	0.30	010	
	1.0	4.80	1.1	0.44	360	
	2.0	5.20	1.2	0.37	350	
	3.0	5.70	1.3	0.37	350	
	4.0	6.10	1.3	0.37	040	
	5.0	11.30	2.0	0.25	040	
	6.0	16.00	3.0	0.14	050	
	7.0	24.00	3.9	0.12	120	
	8.0	25.30	4.8	0.06		150
	9.0	26.30	5.0	0.14		230
	10.5	26.30	5.1	0.30		150
16H 00M	0.0	0.00	1.2	0.33	070	
	1.0	4.50	1.2	0.26	090	
	2.0	5.50	1.2	0.00	000	
	3.0	7.40	1.3	0.06		220
	4.0	15.30	2.7	0.00	000	
	5.0	21.60	3.6	0.17		270
	6.0	25.70	4.4	0.19		270
	7.0	26.20	4.9	0.27		310

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

JAN 5-6/78 RIVER DISCHARGE AT HOPE = 980 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
16H 00M	8.0	26.20	5.0	0.36		310
	9.0	26.20	5.0	0.36		300
	10.0	26.20	5.1	0.31		290
	11.0			0.22		310
	11.3	26.20	5.1			
16H 30M	0.0	1.60	0.8	0.30		150
	1.0	3.20	0.8	0.31		200
	2.0	3.50	0.8	0.37		210
	3.0	4.00	0.9	0.41		200
	4.0	12.50	2.0	0.27		200
	5.0	19.30	3.3	0.34		200
	6.0	24.10	4.3	0.31		220
	7.0	26.20	4.9	0.31		220
	8.0	26.20	5.0	0.24		210
	9.0	26.20	5.1	0.18		210
	10.0	26.20	5.1	0.14		190
	11.0	26.20	5.1	0.14		200
	12.2	26.20	5.1			
17H 00M	0.0	3.40	0.9	0.52		180
	1.0	3.70	0.9	0.43		160
	2.0	3.90	0.9	0.50		160
	3.0	4.30	1.0	0.55		150
	4.0	8.50	1.4	0.49		160
	5.0	13.30	2.8	0.43		180
	6.0	18.30	3.5	0.43		230
	7.0	26.10	4.8	0.37		260
	8.0	26.10	5.0	0.31		300
	9.0	26.10	5.0	0.14		230
	9.8	26.10	5.0			
17H 30M	0.0	3.60	0.8	1.01		220
	1.0	3.60	0.8			
	2.0	4.00	0.8	1.01		220
	3.0	12.80	1.5			
	4.0	18.00	2.4	1.19		220
	5.0	19.60	3.6			
	6.0	23.80	4.4			
	7.0	24.40	4.6			
	8.0	24.50	4.8			
	9.0	24.50	4.8			
18H 00M	0.0	3.20	0.7	1.19		220
	1.0	3.30	0.7			
	2.0	4.80	0.9	1.40		220
	3.0	9.00	1.6			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

JAN 5-6/78 RIVER DISCHARGE AT HOPE = 980 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
18H 00M	4.0	18.50	3.6			
	5.0	22.60	4.3			
	6.0	23.60	4.5			
	7.0	23.60	4.6			
	8.0	23.70	4.8			
	8.5	24.20	4.8			
18H 30M	0.0	2.50	0.6	1.31		220
	1.0	4.20	0.7			
	2.0	5.50	1.0	1.62		220
	3.0	13.70	2.6			
	4.0	16.80	3.2			
	5.0	18.10	3.6			
	6.0	19.50	3.8			
	7.0	20.30	4.2			
	8.2	20.50	4.3			
19H 00M	0.0	4.00	1.0	1.37		220
	1.0	5.00	1.0			
	2.0	8.00	1.8			
	3.0	14.00	2.8			
	4.0	15.80	3.2			
	5.0	16.40	3.3			
	6.0	17.00	3.4			
	7.0	17.10	3.6			
	8.0	17.30	3.6			
19H 30M	0.0	2.80	0.7	1.68		220
	1.0	5.00	1.0			
	2.0	6.00	1.1			
	3.0	9.00	1.6			
	4.0	9.50	2.0			
	5.0	12.50	2.2			
	6.0	14.00	2.8			
	7.0	15.20	3.2			
	7.9	16.00	3.4			
20H 00M	0.0	4.00	0.6	1.37		220
	1.0	4.30	0.7			
	2.0	6.60	1.2			
	3.0	7.40	1.5			
	4.0	7.30	1.4			
	5.0	7.80	1.6			
	6.0	8.00	1.6			
	7.4	8.00	1.6			
20H 30M	0.0	0.80	0.8	1.31		220

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

JAN 5-6/78 RIVER DISCHARGE AT HOPE = 980 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
20H 30M	1.0	4.20	1.0			
	2.0	4.50	1.1			
	3.0	5.10	1.2			
	4.0	6.10	1.3			
	5.0	6.20	1.4			
	6.0	6.20	1.4			
	7.0	6.20	1.5			
	7.8	6.20	1.5			
20H 45M	0.0	3.50	0.8	1.19		220
	1.0	4.00	0.9			
	2.0	4.00	0.9			
	3.0	4.40	1.0			
	4.0	4.50	1.0			
	5.0	4.60	1.1			
	6.0	4.60	1.1			
	7.0	4.70	1.2			
	8.3	4.80	1.2			
21H 00M	0.0	0.50	0.6	1.19		220
	1.0	1.00	0.7			
	2.0	1.00	0.7			
	3.0	1.30	0.7			
	4.0	1.30	0.7			
	5.0	1.70	0.8			
	6.0	1.70	0.8			
	7.3	1.70	0.8			
21H 15M	0.0	0.50	0.5	1.19		220
	1.0	1.80	0.5			
	2.0	1.80	0.6			
	3.0	2.00	0.6			
	4.0	2.00	0.6			
	5.0	2.10	0.6			
	6.0	2.20	0.6			
	7.0	2.30	0.6			
21H 30M	0.0	1.00	0.4	1.01		220
	1.0	1.00	0.4			
	2.0	1.00	0.4			
	3.0	1.00	0.4			
	4.0	1.00	0.4			
	5.0	1.00	0.4			
	6.0	1.00	0.4			
	7.4	1.00	0.4			
22H 00M	0.0	0.20	0.3	0.91		220

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

JAN 5-6/78 RIVER DISCHARGE AT HOPE = 980 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
22H 00M	1.0	0.20	0.3			
	2.0	0.20	0.3			
	3.0	0.20	0.3			
	4.0	0.20	0.3			
	5.0	0.20	0.3			
	6.0	0.20	0.3			
	7.0	0.20	0.3			
	7.8	0.20	0.3			
00H 00M	0.0	0.00	0.1	0.40		220
	1.0	0.00	0.1			
	2.0	0.00	0.1			
	3.0	0.00	0.1			
	4.0	0.00	0.1			
	5.0	0.00	0.1			
	6.0	0.00	0.1			
	7.0	0.00	0.1			
	8.0	0.00	0.1			
00H 30M	0.0	0.00	0.0	0.36		270
	1.0	0.00	0.0			
	2.0	0.00	0.0			
	3.0	0.00	0.0			
	4.0	0.00	0.0	0.27	130	
	5.0	0.00	0.0			
	6.0	0.00	0.0	0.18	350	
	7.0	0.00	0.0			
	8.0	0.00	0.0	0.27	330	
01H 00M	0.0	0.00	0.1	0.06	060	
	1.0	0.00	0.1			
	2.0	0.00	0.1			
	3.0	0.00	0.1			
	4.0	0.00	0.1	0.06		280
	5.0	0.00	0.1			
	6.0	0.00	0.1	0.06		250
	7.0	0.00	0.1			
	8.0	0.00	0.1	0.06	130	
01H 30M	0.0	0.00	0.1	0.09		250
	1.0	0.00	0.1			
	2.0	0.00	0.1			
	3.0	0.00	0.1			
	4.0	0.00	0.1	0.09		300
	5.0	0.00	0.1			
	6.0	0.00	0.1			
	7.0	0.00	0.1			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

JAN 5-6/78 RIVER DISCHARGE AT HOPE = 980 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
01H 30M	8.0	0.00	0.1			
	9.0	0.00	0.1	0.00	000	
02H 00M	0.0	0.00	0.1	0.07		310
	1.0	0.00	0.1			
	2.0	0.00	0.1			
	3.0	0.00	0.1			
	4.0	0.00	0.1	0.16	000	
	5.0	0.00	0.1			
	6.0	0.00	0.1			
	7.0	0.00	0.1	0.19		140
	8.0	0.20	0.1			
	9.0	0.20	0.1			
	9.7	0.30	0.1	0.03	070	
02H 30M	0.0	0.00	0.1	0.14		200
	1.0	0.00	0.1	0.19	130	
	2.0	0.10	0.1			
	3.0	0.20	0.2	0.22	110	
	4.0	0.20	0.2			
	5.0	0.30	0.2	0.20		140
	6.0	0.40	0.2			
	7.0	0.40	0.2	0.16	120	
	8.0	0.40	0.2	0.22	120	
	9.0	0.40	0.2			
	9.7	0.40	0.2	0.14	080	
03H 00M	0.0	0.30	0.2			
	1.0	0.30	0.2			
	2.0	0.30	0.2			
	3.0	0.30	0.2			
	4.0	0.30	0.2			
	5.0	0.30	0.2			
	6.0	0.30	0.2			
	7.0	0.30	0.2			
	8.0	0.30	0.2			
	9.0	0.30	0.2			
	10.2	0.30	0.2			
03H 35M	0.0	0.00	0.1			
	1.0	0.00	0.1			
	2.0	0.00	0.1			
	3.0	0.00	0.1			
	4.0	0.00	0.1			
	5.0	0.00	0.2			
	6.0	0.00	0.2			
	7.0	0.00	0.2			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

JAN 5-6/78 RIVER DISCHARGE AT HOPE = 980 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
03H 35M	8.0	0.20	0.2			
	9.0	0.20	0.2			
	9.3	0.30	0.2			
04H 00M	0.0	0.00	0.1			
	1.0	0.10	0.1			
	2.0	0.10	0.1			
	3.0	0.10	0.1			
	4.0	0.20	0.2			
	5.0	0.20	0.2			
	6.0	0.20	0.2			
	7.0	0.20	0.2			
	8.0	0.20	0.2			
	9.0	0.20	0.2			
	10.0	0.20	0.2			
	10.3	0.20	0.2			
04H 30M	0.0	0.50	0.2			
	1.0	0.50	0.2			
	2.0	0.50	0.2			
	3.0	0.50	0.2			
	4.0	0.50	0.2			
	5.0	0.50	0.2			
	6.0	0.50	0.2			
	7.0	0.50	0.2			
	8.0	0.50	0.2			
	9.0	0.50	0.2			
	10.0	0.50	0.2			
	11.4	0.50	0.2			
05H 00M	0.0	1.00	0.1	0.37	080	
	1.0	1.00	0.1			
	2.0	1.00	0.1	0.43	070	
	3.0	1.00	0.1			
	4.0	1.00	0.1			
	5.0	1.10	0.1	0.33	050	
	6.0	1.20	0.1			
	7.0	1.30	0.2			
	8.0	1.40	0.2			
	9.0	1.40	0.2			
	10.3	1.40	0.2			
05H 15M	0.0	1.00	0.1			
	1.0	1.10	0.1			
	2.0	1.10	0.1			
	3.0	1.20	0.2			
	4.0	1.40	0.2			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

JAN 5-6/78 RIVER DISCHARGE AT HOPE = 980 CU.M/SEC

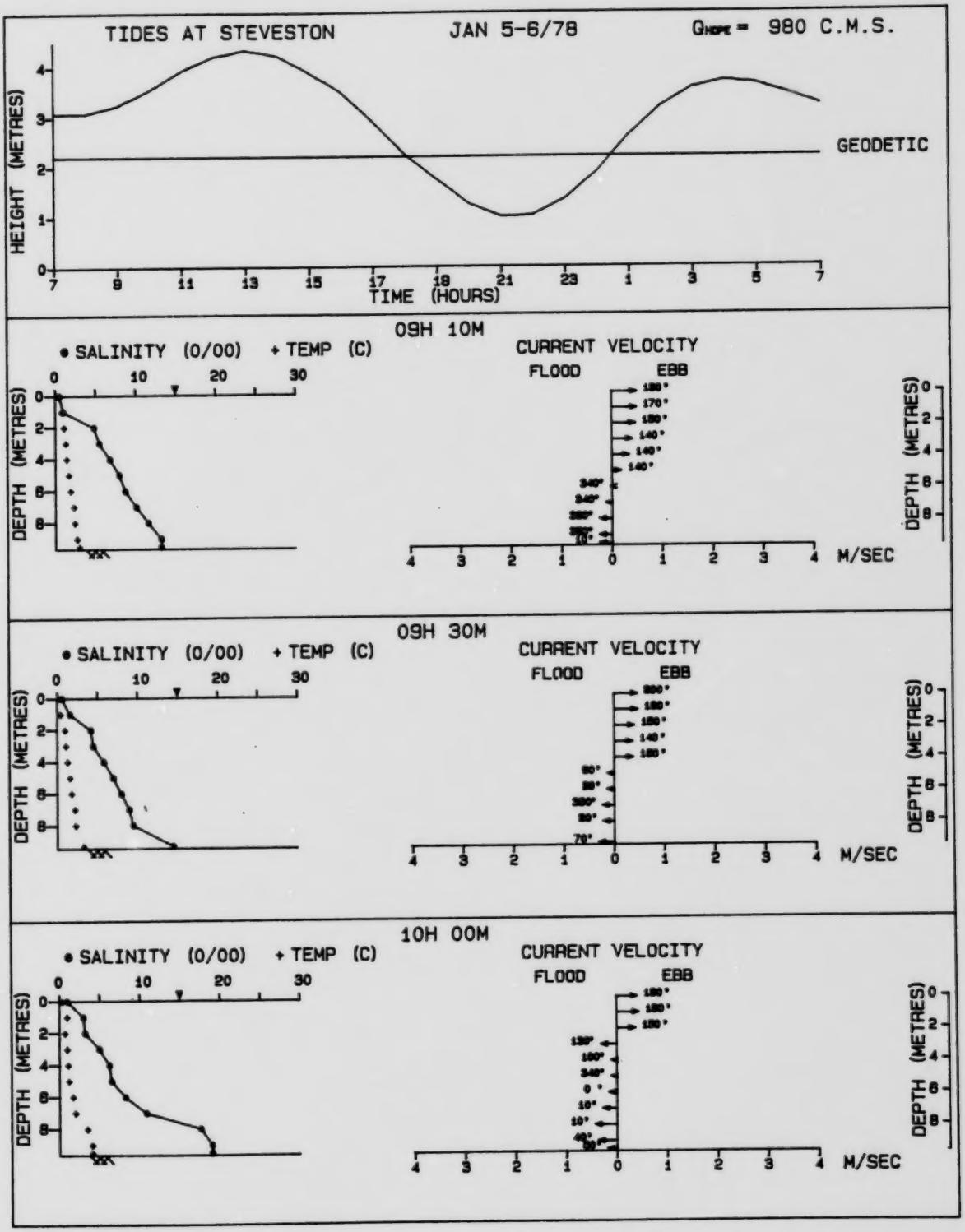
TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
05H 15M	5.0	1.90	0.3			
	6.0	2.00	0.3			
	7.0	2.00	0.3			
	8.0	2.00	0.3			
	9.0	2.00	0.3			
	10.0	2.00	0.3			
	10.5	2.00	0.3			
05H 30M	0.0	0.80	0.1			
	1.0	1.00	0.1			
	2.0	1.00	0.1			
	3.0	1.10	0.1			
	4.0	1.30	0.2			
	5.0	1.70	0.3			
	6.0	2.30	0.3			
	7.0	2.50	0.3			
	8.0	2.60	0.3			
	9.0	2.60	0.3			
	10.0	2.60	0.3			
	10.5	2.60	0.3			
05H 45M	0.0	1.00	0.0			
	1.0	1.00	0.0			
	2.0	1.00	0.0			
	3.0	1.00	0.1			
	4.0	1.30	0.1			
	5.0	1.90	0.2			
	6.0	2.80	0.4			
	7.0	3.00	0.5			
	8.0	3.00	0.5			
	9.0	3.40	0.6			
	10.0	3.40	0.6			
	10.4	3.40	0.6			
06H 00M	0.0	1.00	0.3			
	1.0	1.00	0.3			
	2.0	1.10	0.3			
	3.0	1.10	0.3			
	4.0	1.20	0.3			
	5.0	1.80	0.4			
	6.0	2.10	0.5			
	7.0	4.00	0.8			
	8.0	4.10	0.9			
	9.0	4.20	0.9			
	10.4	4.20	0.9			
06H 15M	0.0	1.00	0.2			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

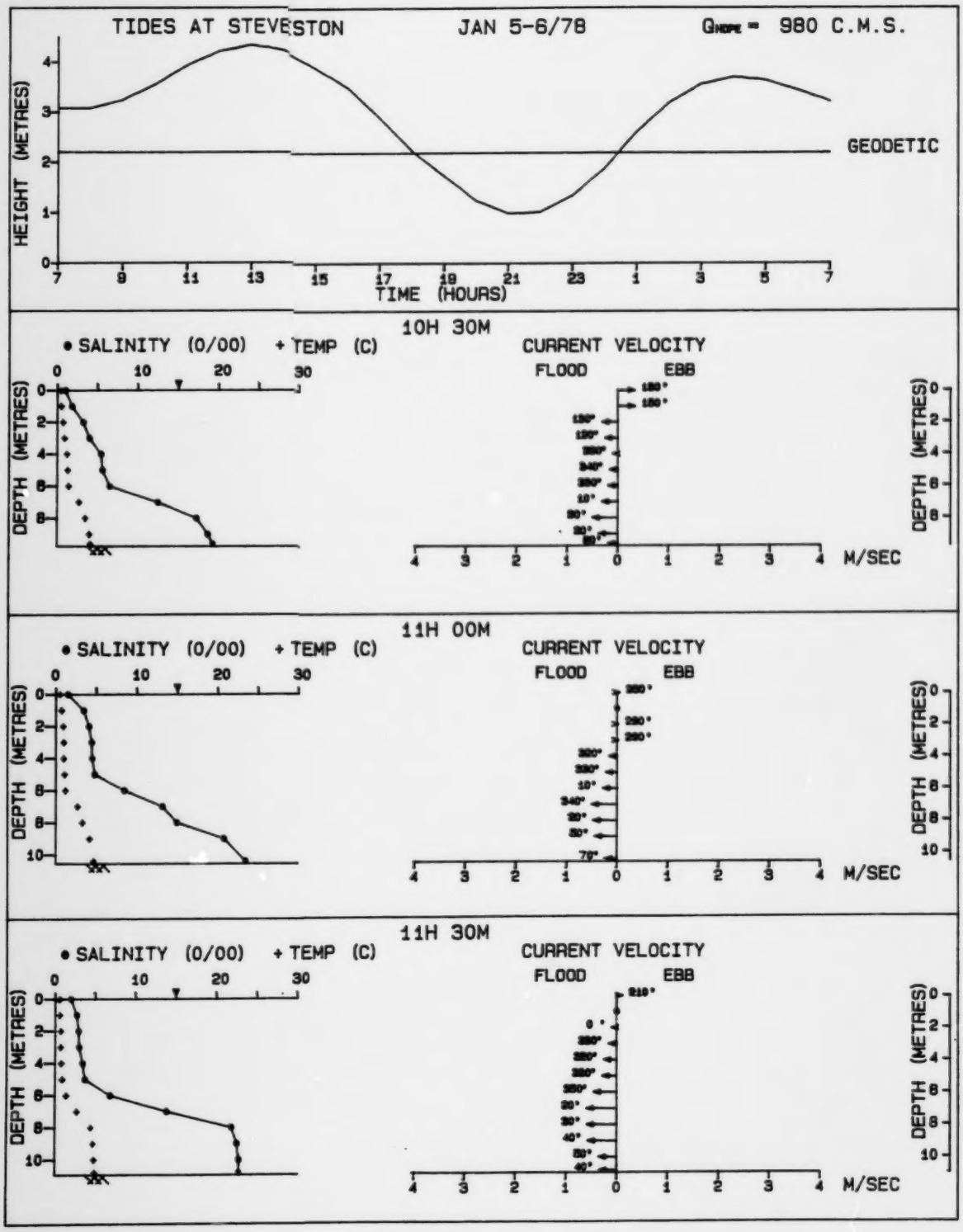
JAN 5-6/78 RIVER DISCHARGE AT HOPE = 980 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
06H 15M	1.0	1.00	0.2			
	2.0	1.00	0.3			
	3.0	1.00	0.3			
	4.0	1.10	0.3			
	5.0	1.60	0.4			
	6.0	2.40	0.6			
	7.0	4.00	0.9			
	8.0	4.00	0.9			
	9.0	4.20	1.0			
	10.0	4.20	1.0			
	11.0	4.20	1.0			
06H 30M	0.0	1.00	0.3	0.06	000	
	1.0	1.00	0.3			
	2.0	1.10	0.4	0.06	020	
	3.0	1.50	0.4			
	4.0	2.00	0.4	0.11	110	
	5.0	3.00	0.6			
	6.0	3.50	0.8	0.15	110	
	7.0	4.60	1.0			
	8.0	5.00	1.1	0.19	050	
	9.0	5.00	1.1			
	10.0	5.00	1.1	0.24	070	
	11.0	5.00	1.1			
	11.6	5.00	1.1			
06H 45M	0.0	1.00	0.4			
	1.0	1.00	0.4			
	2.0	1.40	0.4			
	3.0	1.50	0.4			
	4.0	1.50	0.4			
	5.0	2.70	0.6			
	6.0	3.40	0.8			
	7.0	5.30	1.0			
	8.0	5.50	1.2			
	9.0	5.50	1.2			
	10.0	5.60	1.2			
	11.2	5.60	1.2			

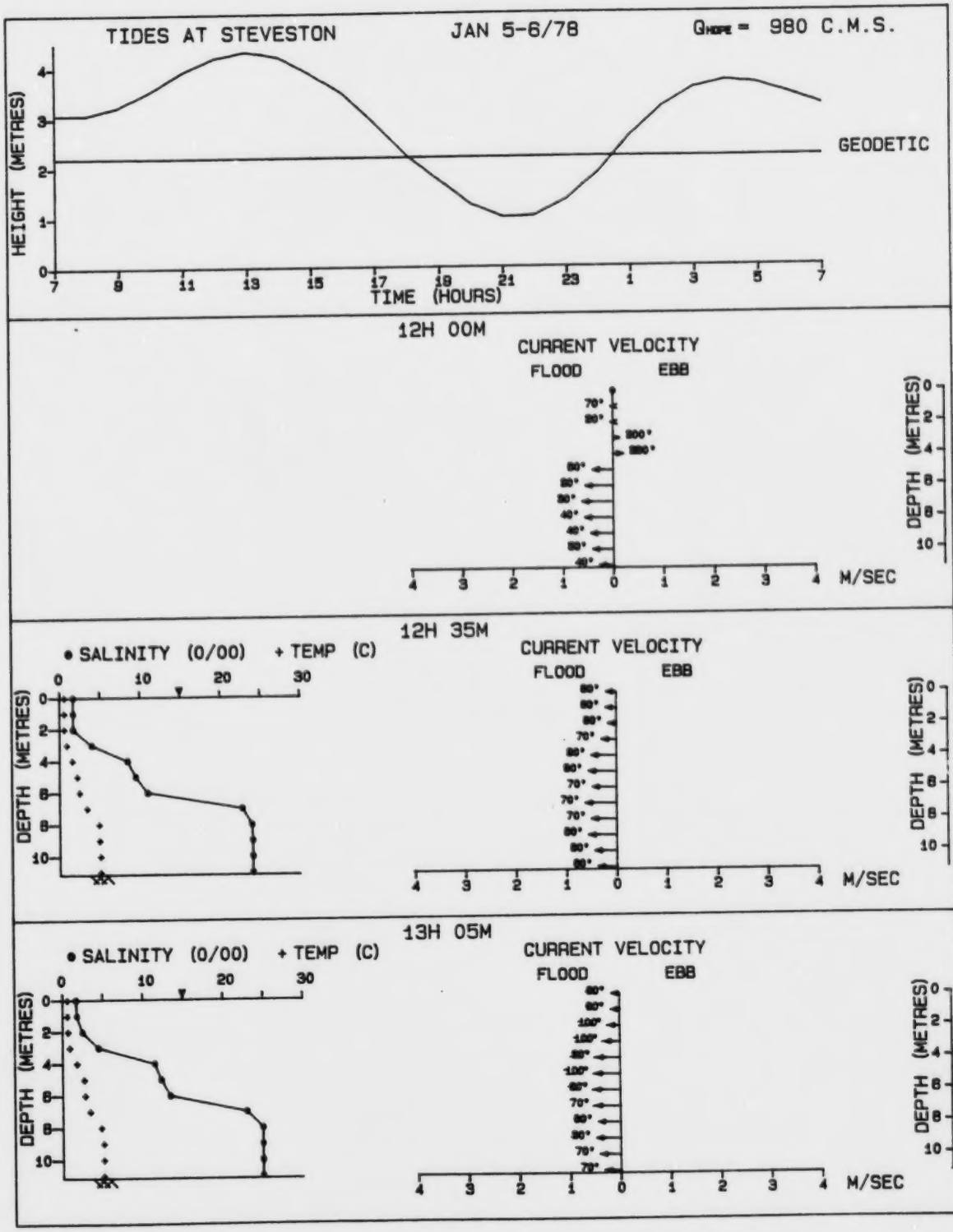
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



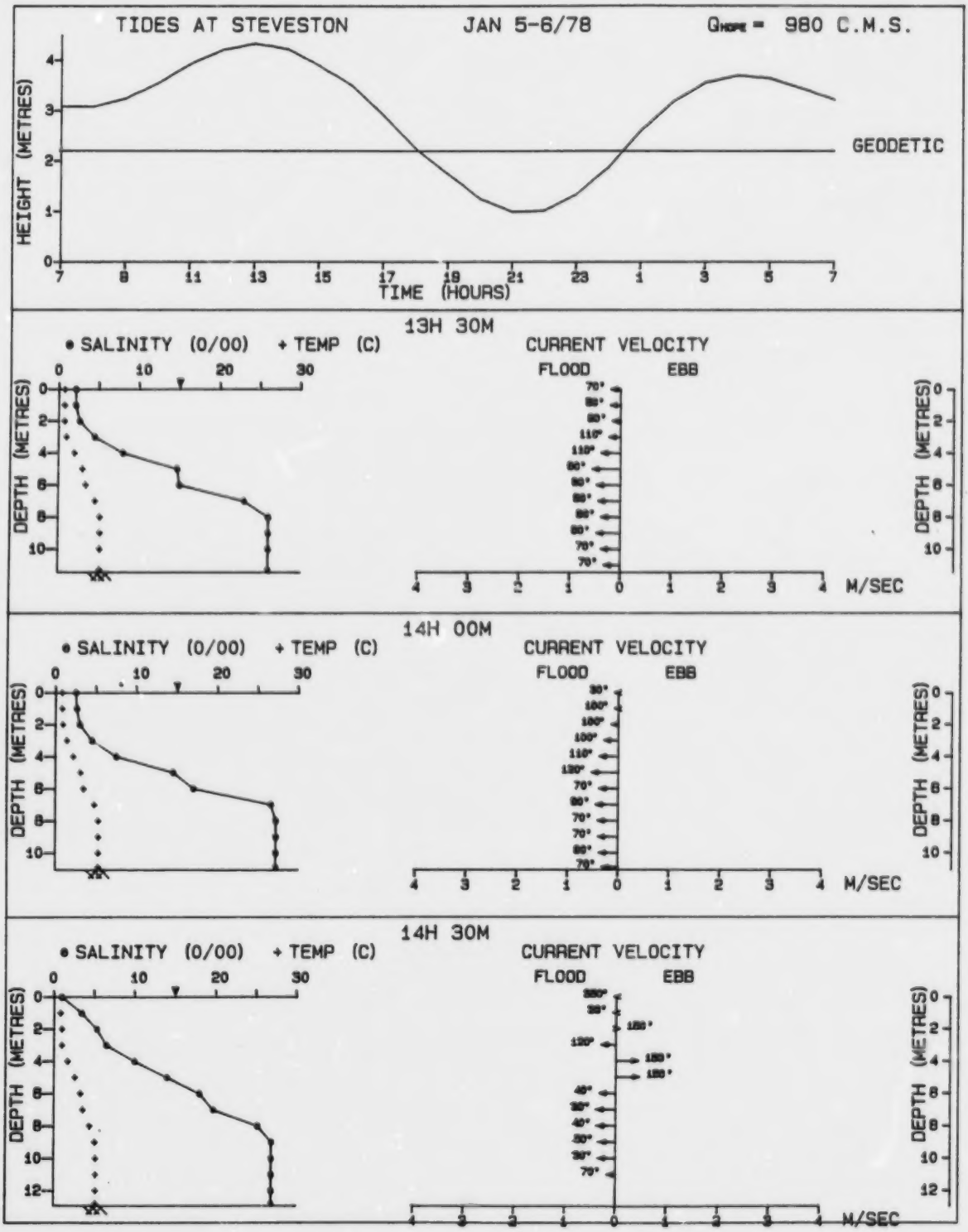
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



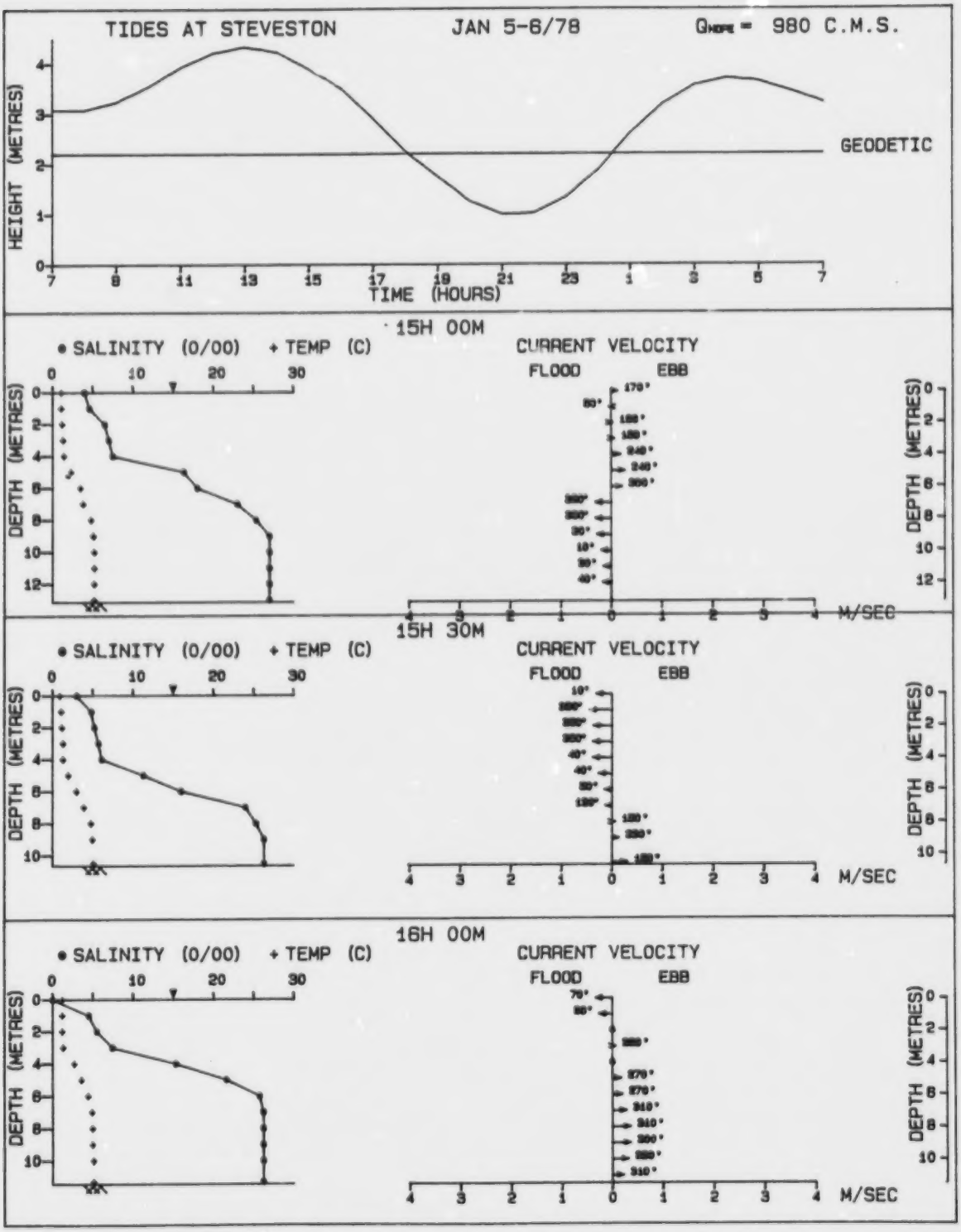
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



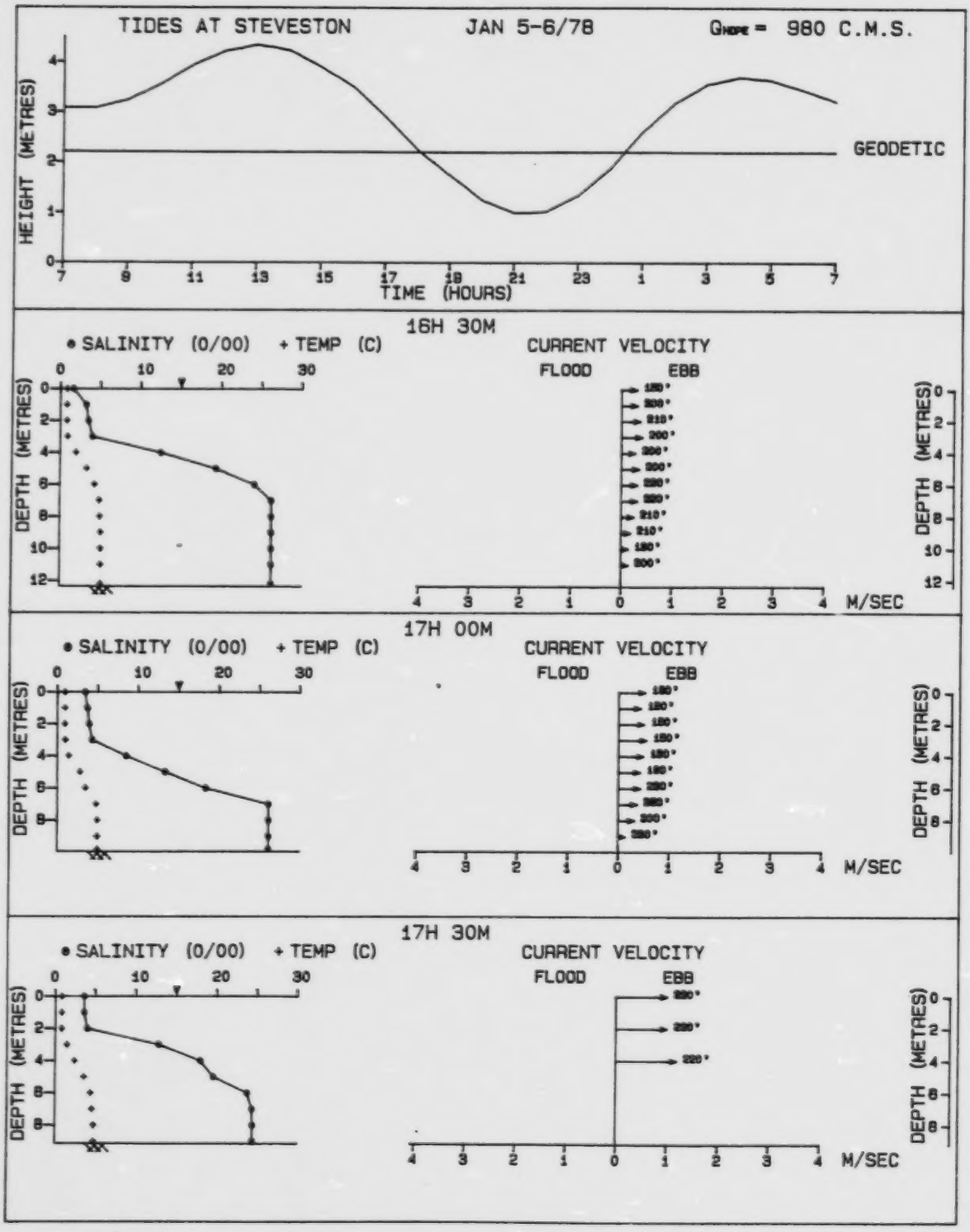
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



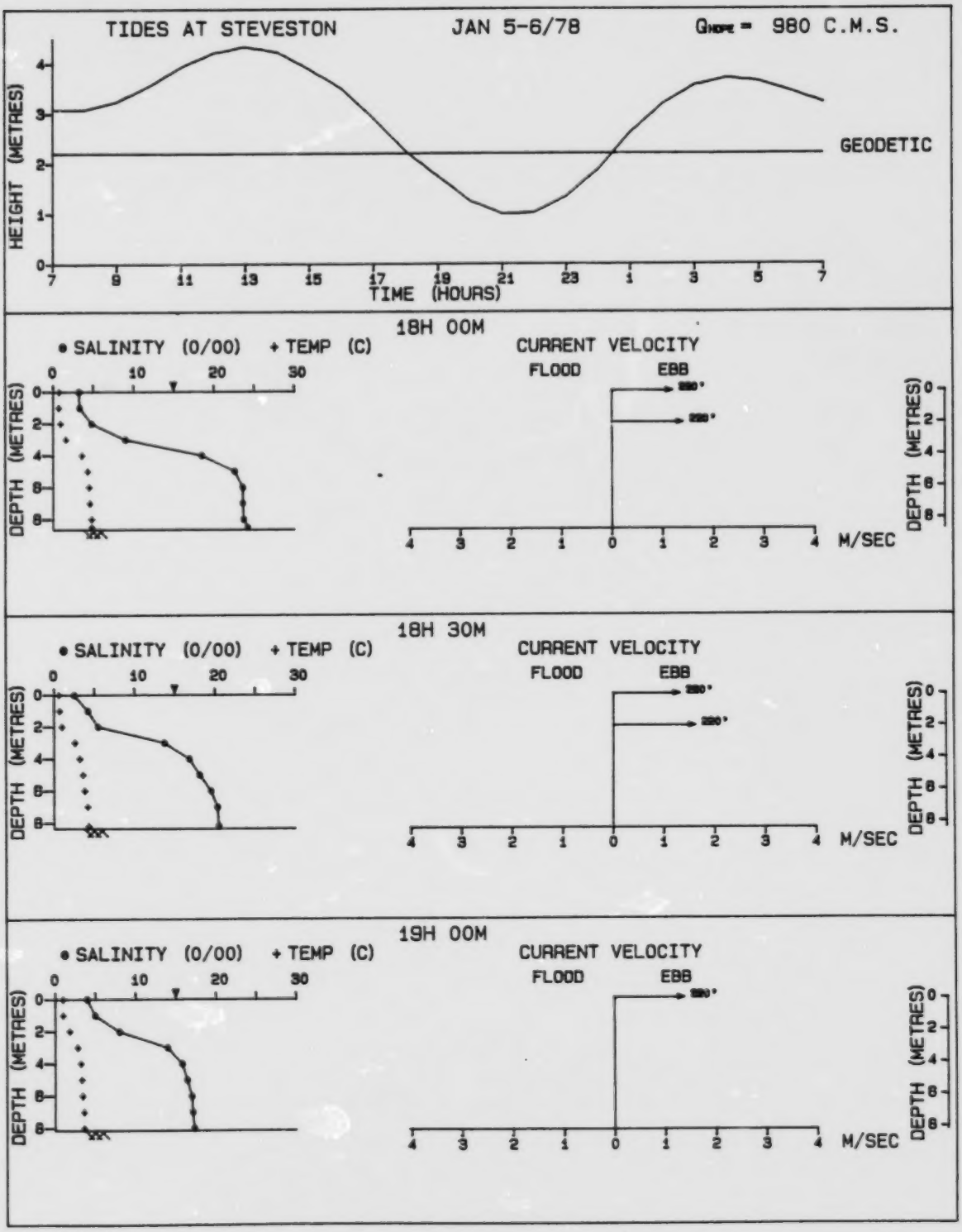
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



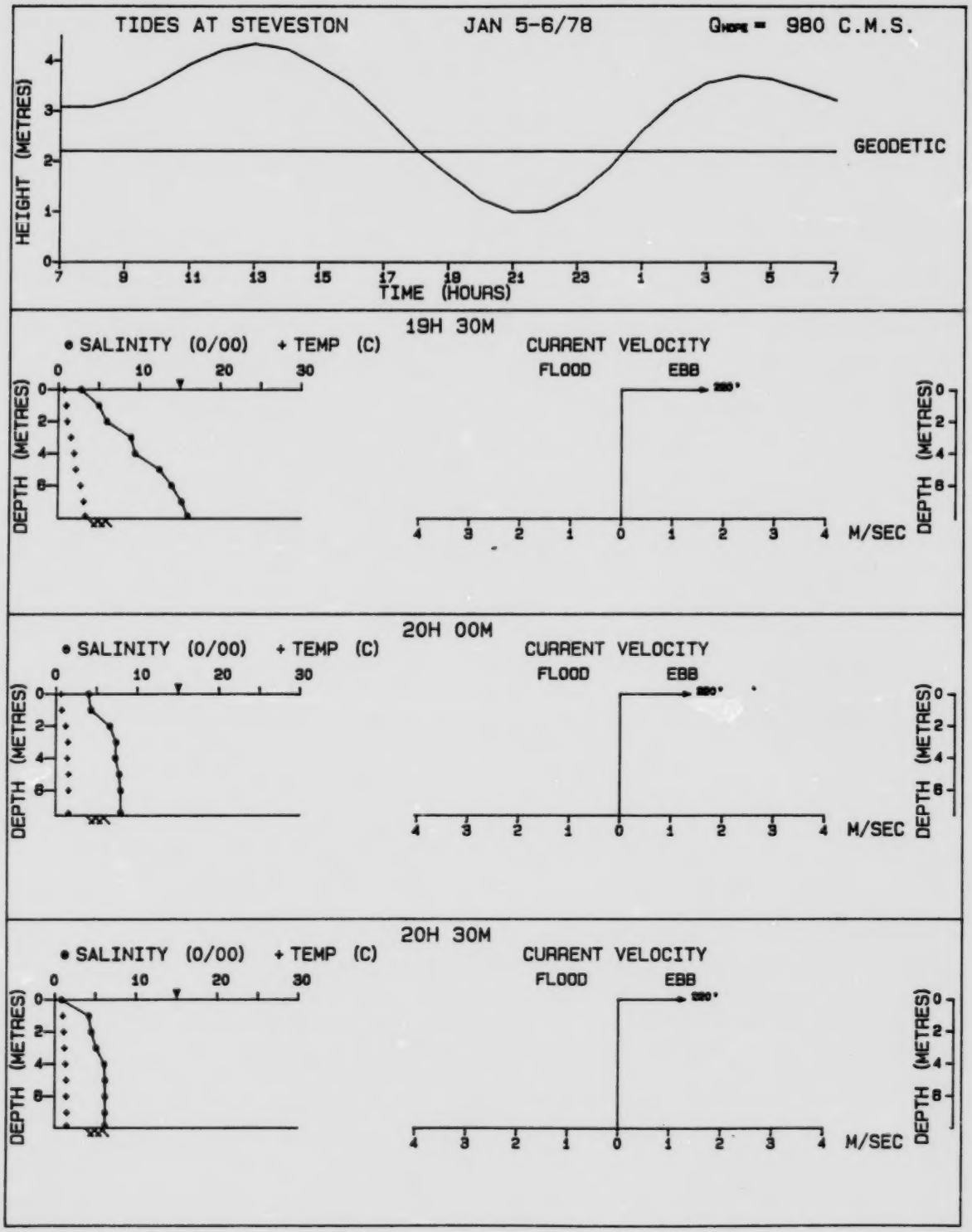
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



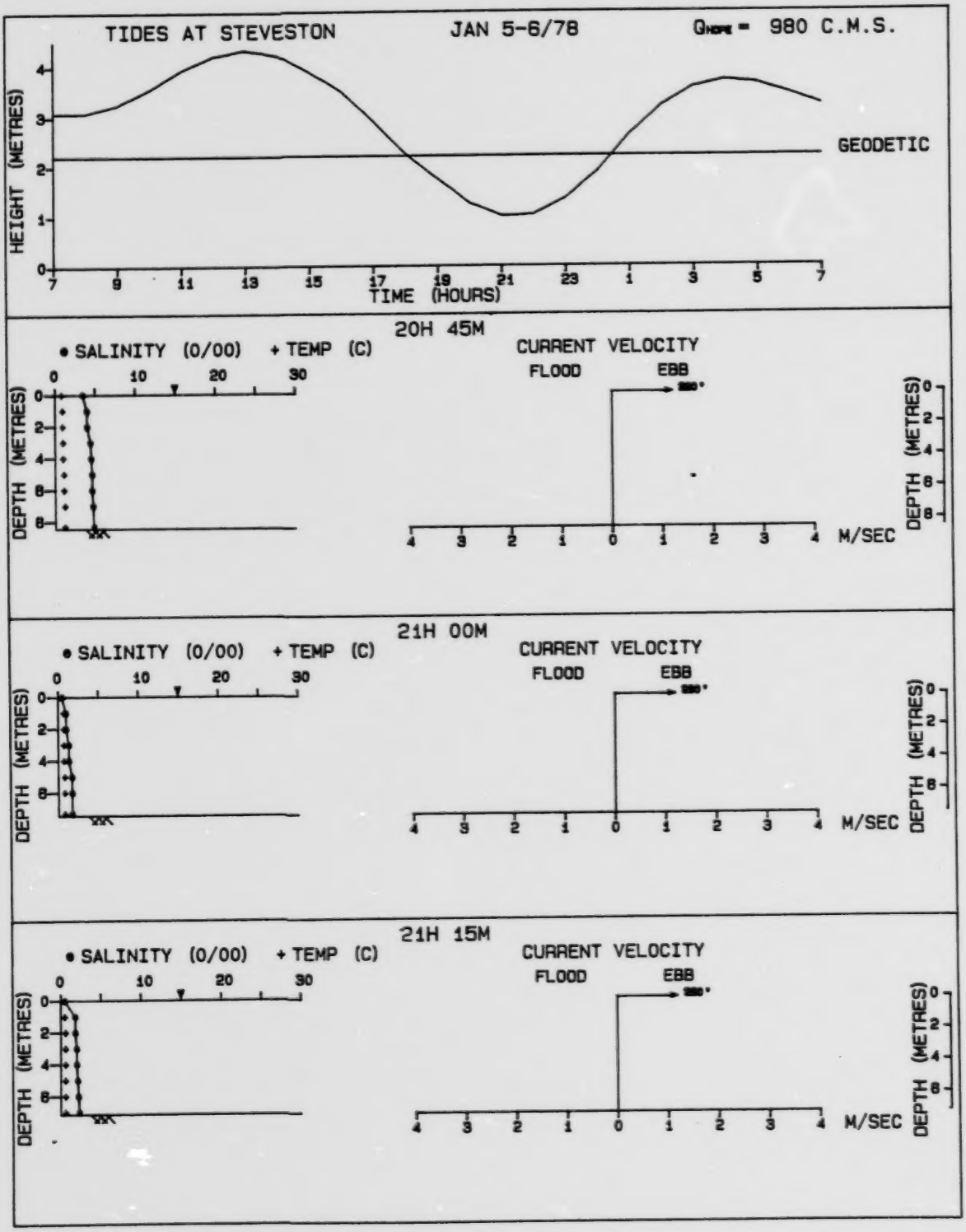
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



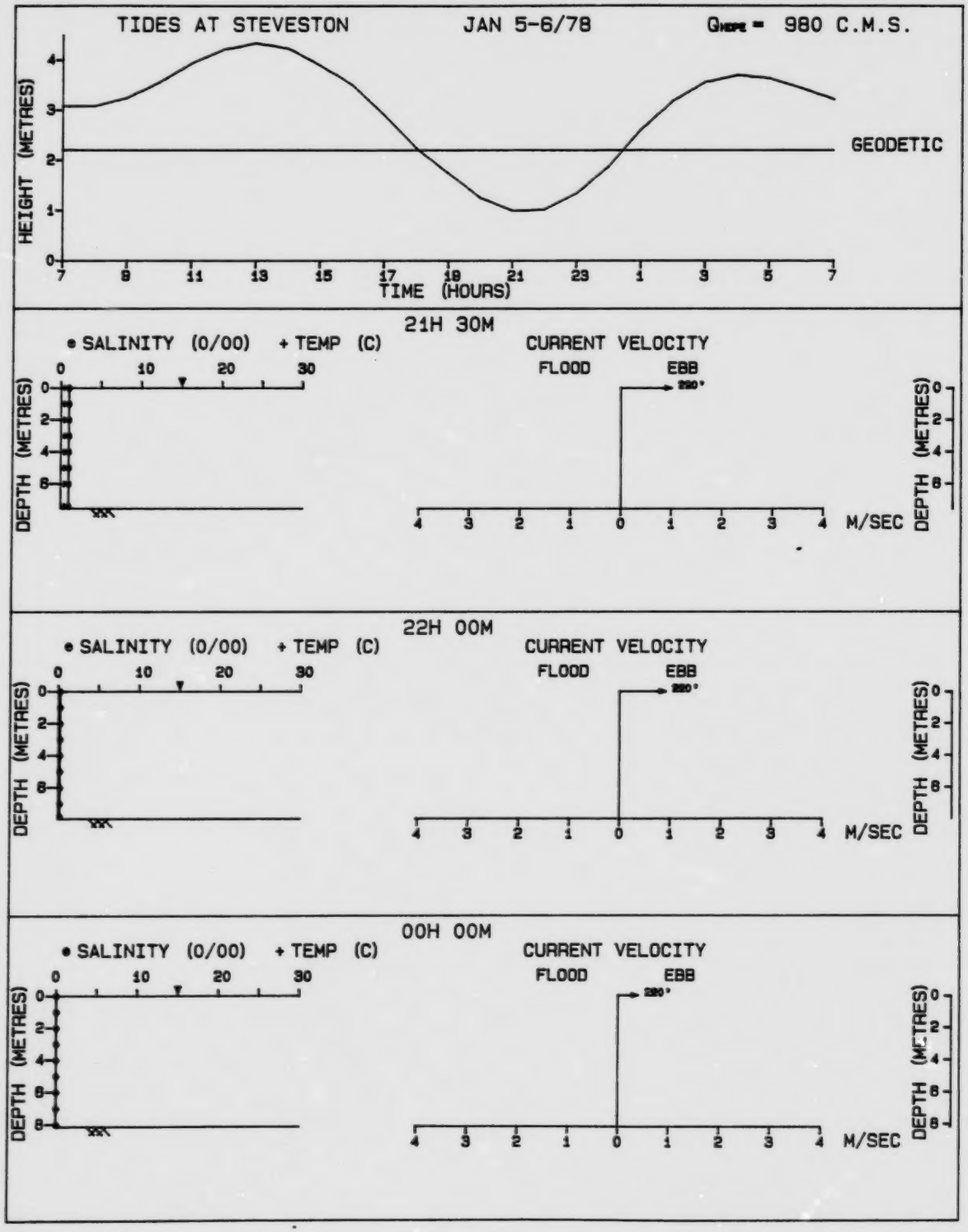
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



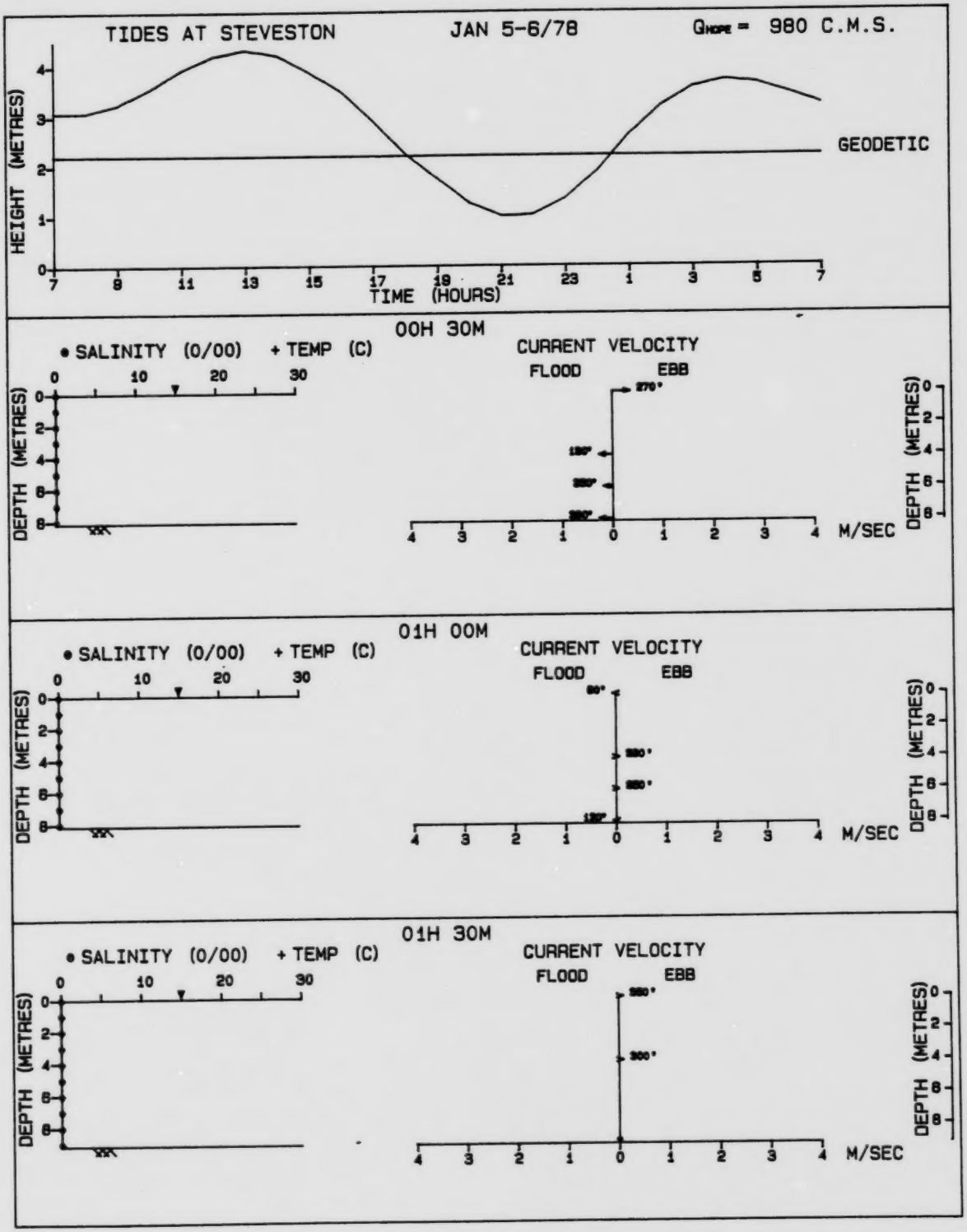
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



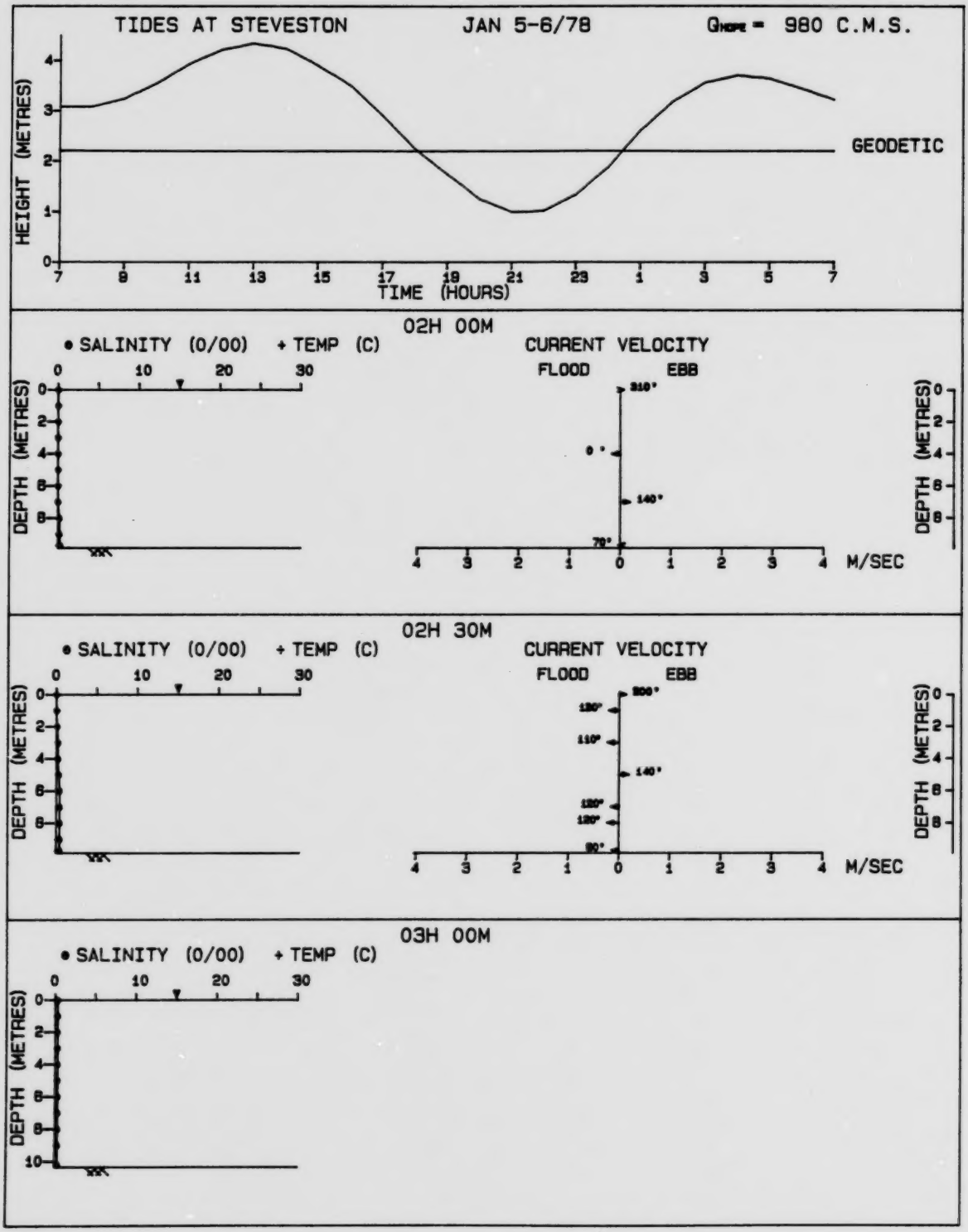
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



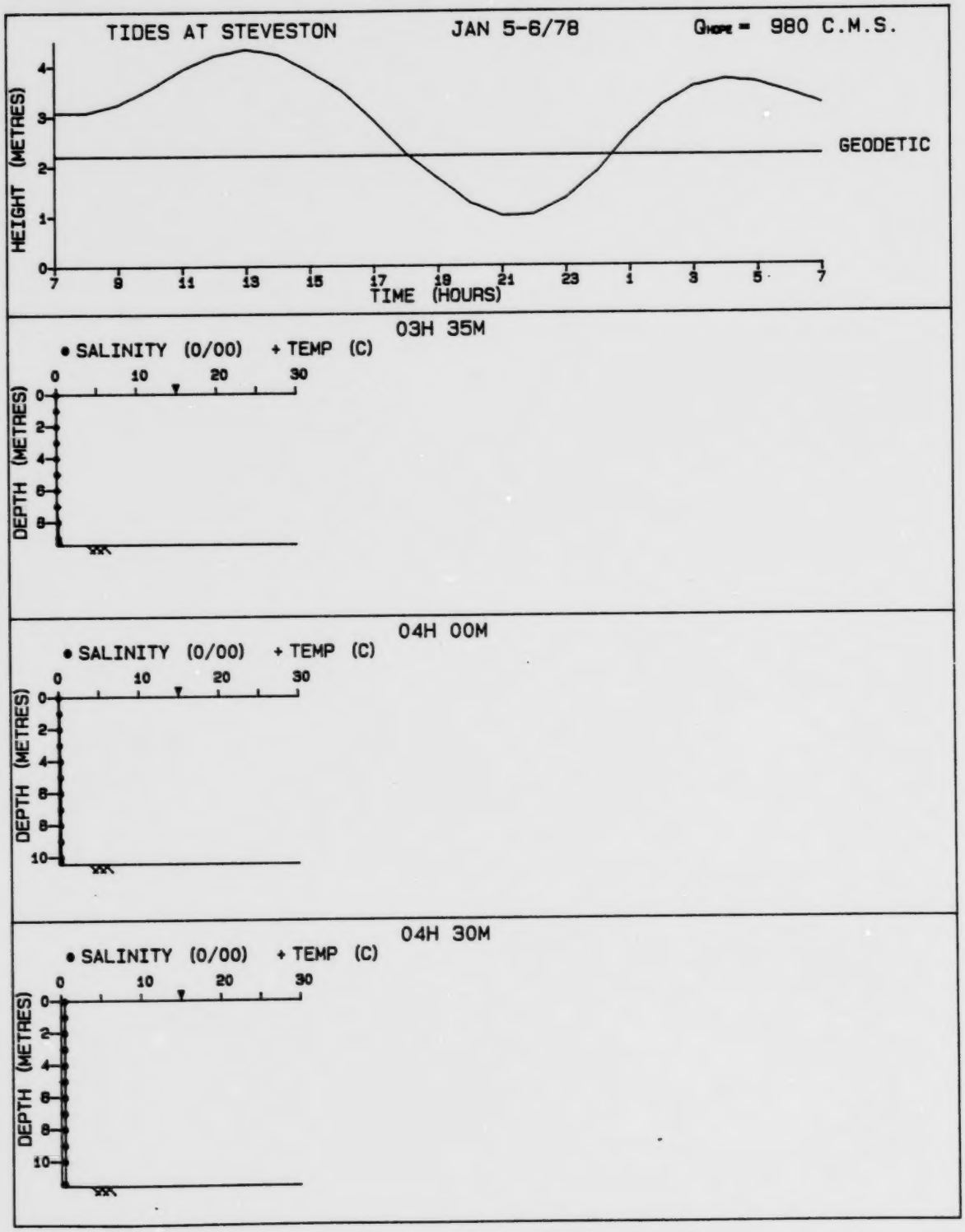
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



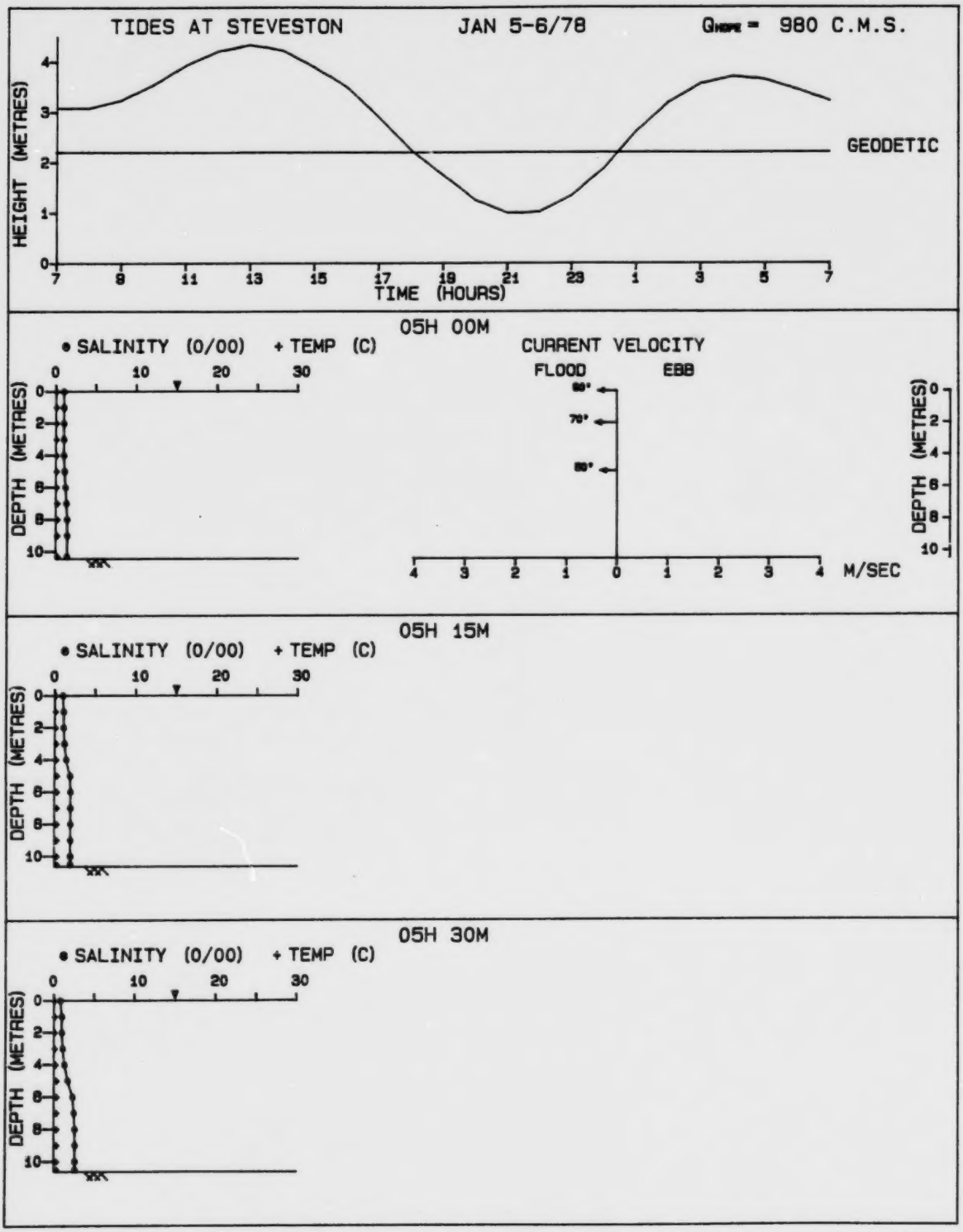
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



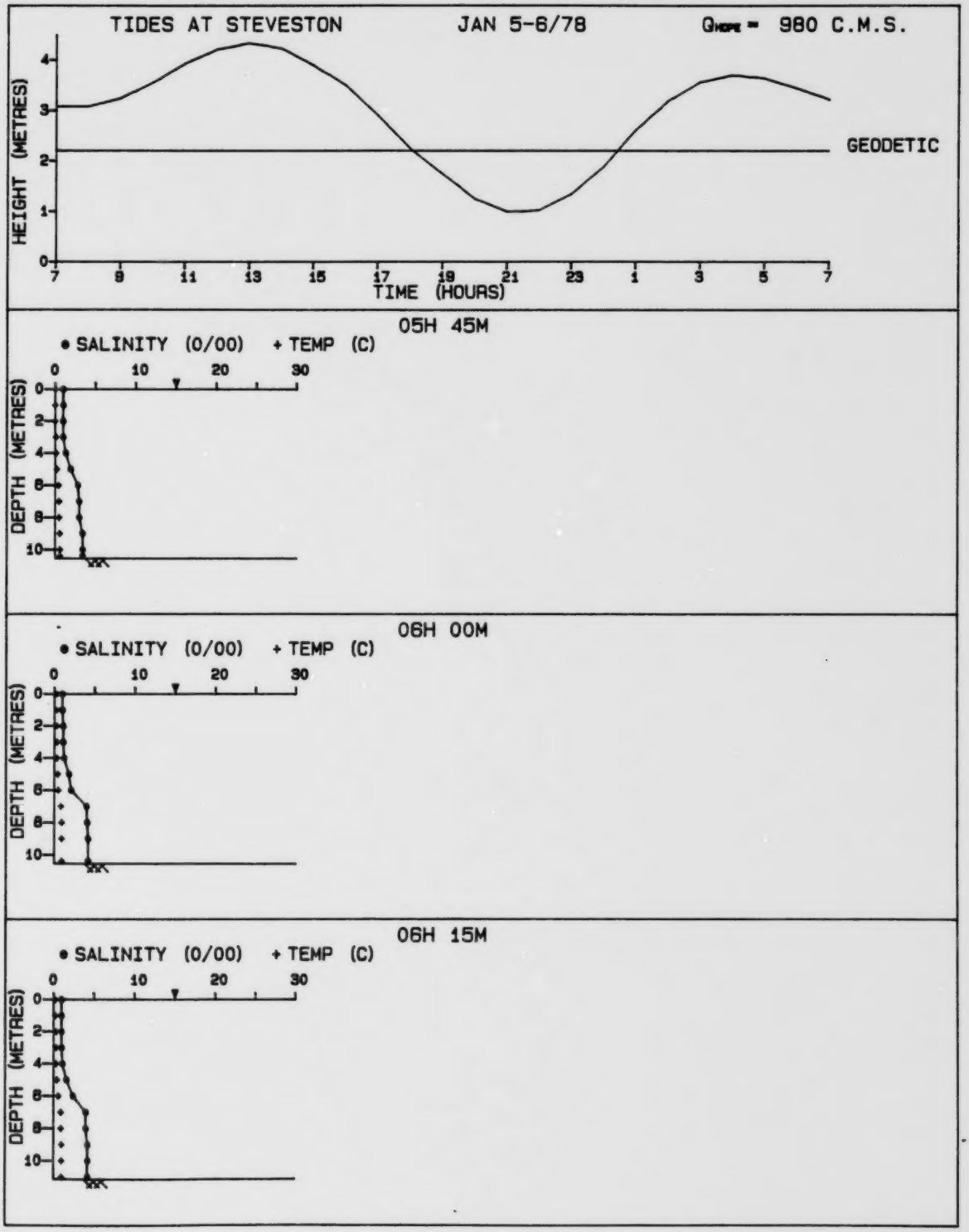
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



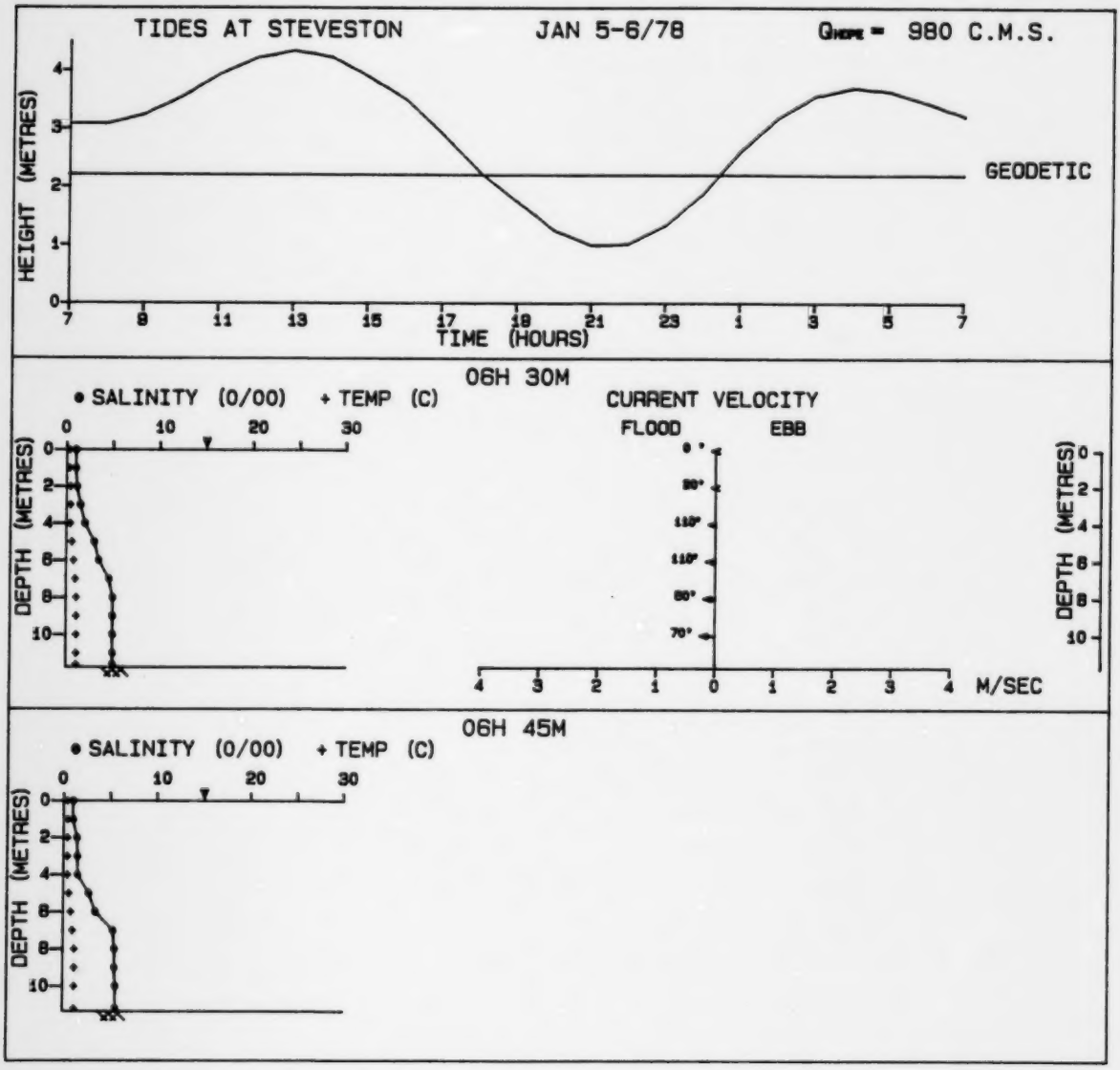
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



CURRENT MEASUREMENTS AT PATTULLO BR.

JAN 12-13/78 RIVER DISCHARGE AT HOPE = 830 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
17H 40M	0.0			0.36	020	
	2.0			0.09	110	
	4.0			0.09	120	
	6.0			0.09	120	
	8.0			0.25		140
18H 00M	0.0			0.24		300
	2.0			0.30		250
	4.0			0.43	060	
	6.0			0.46		230
	8.5			0.43		280
21H 10M	0.0			0.24		250
	2.0			0.37		250
	4.0			0.37		220
	6.0			0.30		240
	8.0			0.30		150
	10.0			0.30	110	
21H 30M	0.0			0.31	330	
	2.0			0.31		230
	4.0			0.33		220
	6.0			0.33		220
	8.0			0.31		210
	9.5			0.33		200
23H 30M	0.0			0.25		190
	2.0			0.43		200
	4.0			0.43		260
	6.0			0.30		280
	7.0			0.31	110	
00H 00M	0.0			0.41		180
	2.0			0.41		260
	4.0			0.41		260
	6.0			0.39		270
	7.0			0.39		230
01H 00M	0.0			0.50		210
	2.0			0.44		280
	4.0			0.39		270
	6.0			0.39		270
	7.0			0.37	100	
02H 00M	0.0			0.22		150
	2.0			0.20		250
	4.0			0.15		290

CURRENT MEASUREMENTS AT PATTULLO BR.

JAN 12-13/78 RIVER DISCHARGE AT HOPE = 830 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
02H 00M	6.0			0.19		270
	7.0			0.14		280
02H 30M	0.0			0.14		300
	2.0			0.19	100	
	4.0			0.13	100	
	6.0			0.09	100	
	7.0			0.10	080	
03H 00M	0.0			0.31	080	
	2.0			0.16	090	
	4.0			0.16	130	
	6.0			0.16	120	
	7.5			0.20		150
03H 30M	0.0			0.18		170
	2.0			0.18		250
	4.0			0.15	070	
	6.0			0.12	120	
	7.5			0.13		200
04H 00M	0.0			0.18	340	
	2.0			0.14	040	
	4.0			0.16	050	
	6.0			0.17	030	
	7.0			0.10	070	
04H 30M	0.0			0.18		200
	2.0			0.16	080	
	4.0			0.20	070	
	6.0			0.20	070	
	7.0			0.14	360	
05H 00M	0.0			0.09		290
	2.0			0.14		220
	4.0			0.30	020	
	6.0			0.12	070	
	7.0			0.14	070	
05H 30M	0.0			0.12	010	
	2.0			0.10	000	
	4.0			0.10	050	
	6.0			0.13	110	
	7.0			0.13	130	
06H 00M	0.0			0.19	000	
	2.0			0.19	350	

CURRENT MEASUREMENTS AT PATTULLO BR.

JAN 12-13/78 RIVER DISCHARGE AT HOPE = 830 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
06H 00M	4.0			0.19		200
	6.0			0.16	010	
	7.0			0.15	350	
06H 30M	0.0			0.11		300
	2.0			0.09		240
	4.0			0.20		300
	6.0			0.14		270
	7.0			0.14		270
07H 00M	0.0			0.09	020	
	2.0			0.09		290
	4.0			0.13		280
	6.0			0.13		280
	7.5			0.15		230
	9.0			0.16		270
07H 45M	0.0			0.70	040	
	2.0			0.50	040	
	4.0			0.50	040	
	6.0			0.40	040	
	7.0			0.30	040	
08H 30M	0.0			0.80	040	
	2.0			0.50	040	
	4.0			0.50	040	
	6.0			0.50	040	
	8.0			0.30	040	
09H 00M	0.0			1.00	040	
	2.0			0.70	040	
	4.0			0.70	040	
09H 30M	0.0			0.90	040	
	2.0			0.70	040	
10H 00M	0.0			0.90	040	
	2.0			0.50	040	
	4.0			0.50	040	
	6.0			0.50	040	
10H 30M	0.0			0.70	040	
	2.0			0.40	040	
	4.0			0.40	040	
	6.0			0.30	040	
11H 00M	0.0			0.60	040	

CURRENT MEASUREMENTS AT PATTULLO BR.

JAN 12-13/78 RIVER DISCHARGE AT HOPE = 830 CU.M/SEC

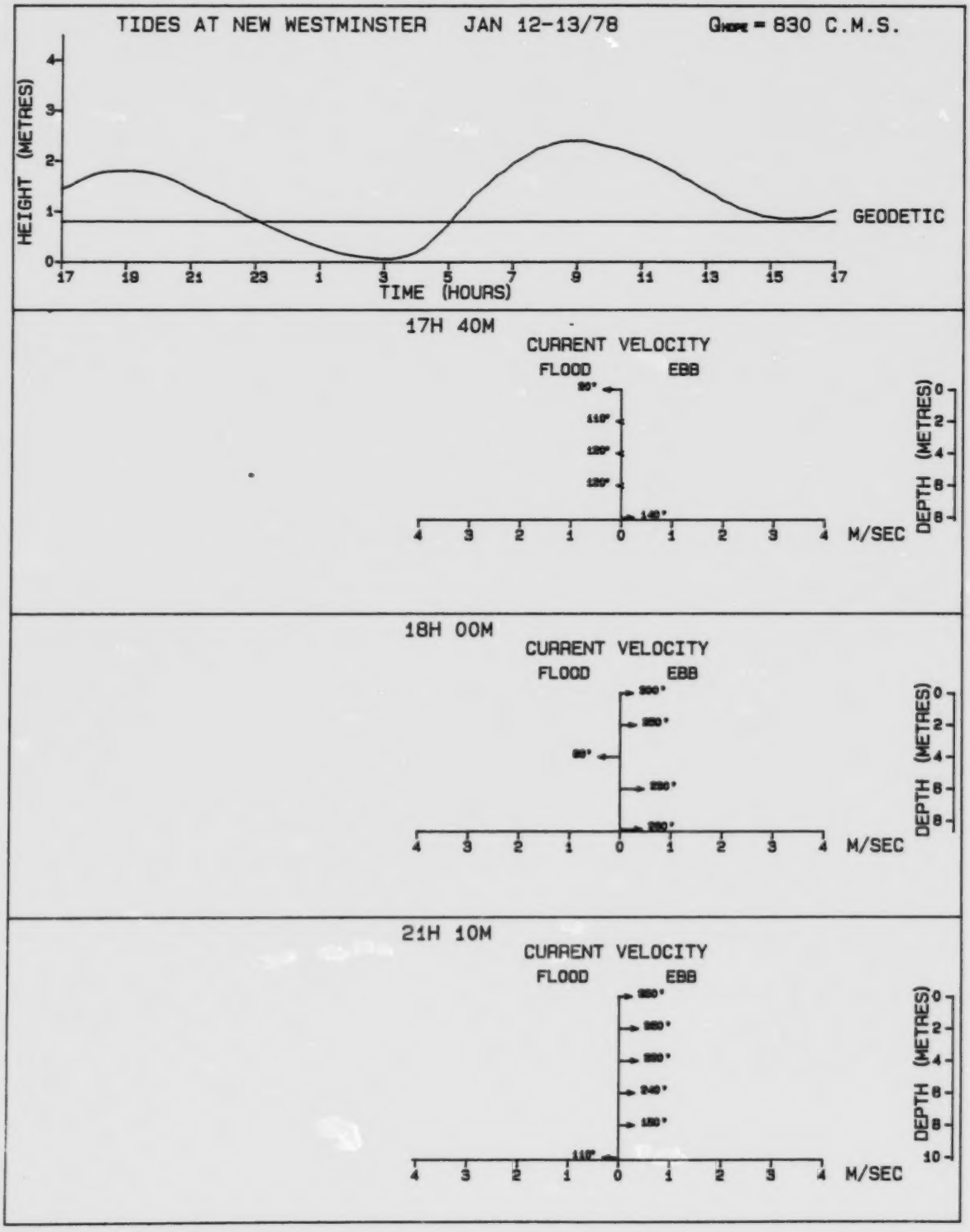
TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
11H 00M	2.0			0.50	040	
	4.0			0.50	040	
	6.0			0.40	040	
	8.0			0.30	040	
11H 30M	0.0			0.40	040	
	2.0			0.40	040	
	4.0			0.30	040	
	6.0			0.30	040	
	8.0			0.20	040	
13H 30M	0.0			0.50		220
	2.0			0.40		220
	4.0			0.40		220
	6.0			0.30		220
	7.0			0.10		220
14H 00M	0.0			0.60		220
	2.0			0.50		220
	4.0			0.40		220
	6.0			0.30		220
	7.0			0.30		220
14H 30M	0.0			0.37	080	
	2.0			0.45	110	
	4.0			0.41		150
	6.0			0.41		160
	7.5			0.41		180
15H 00M	0.0			0.54	050	
	2.0			0.65		140
	4.0			0.56		150
	6.0			0.55		140
	7.0			0.53		170
15H 30M	0.0			0.44	030	
	2.0			0.65	090	
	4.0			0.62	110	
	6.0			0.55	130	
	7.0			0.55		150
16H 00M	0.0			0.74		170
	2.0			0.65	130	
	4.0			0.62	130	
	6.0			0.55	130	
	7.5			0.52	130	

CURRENT MEASUREMENTS AT PATTULLO BR.

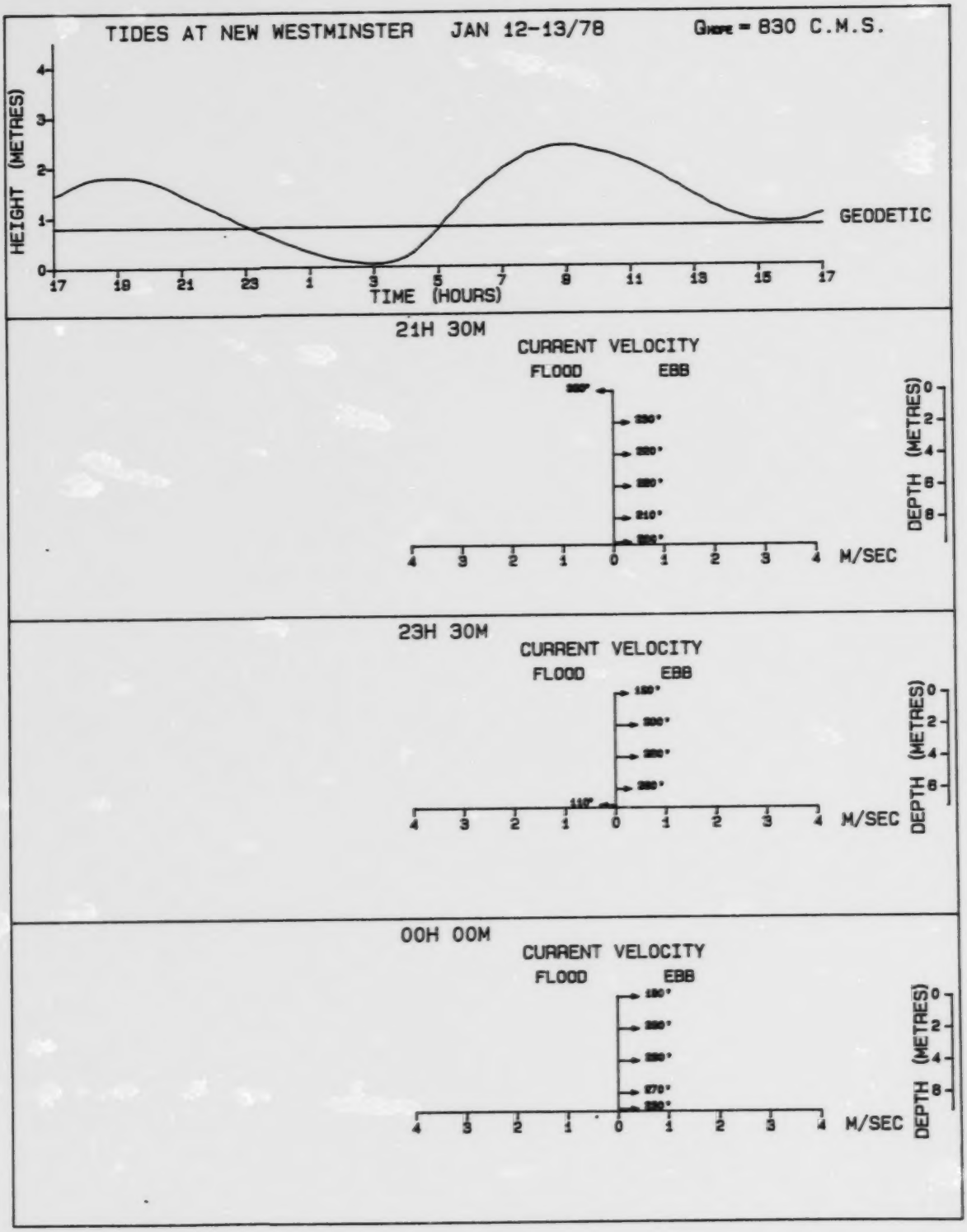
JAN 12-13/78 RIVER DISCHARGE AT HOPE = 830 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
16H 30M	0.0			0.57		150
	2.0			0.56		250
	4.0			0.41	130	
	6.0			0.40	130	
	7.0			0.39	120	
17H 00M	0.0			0.39		180
	2.0			0.49	080	
	4.0			0.49	070	
	6.0			0.46	110	
	7.0			0.46		150

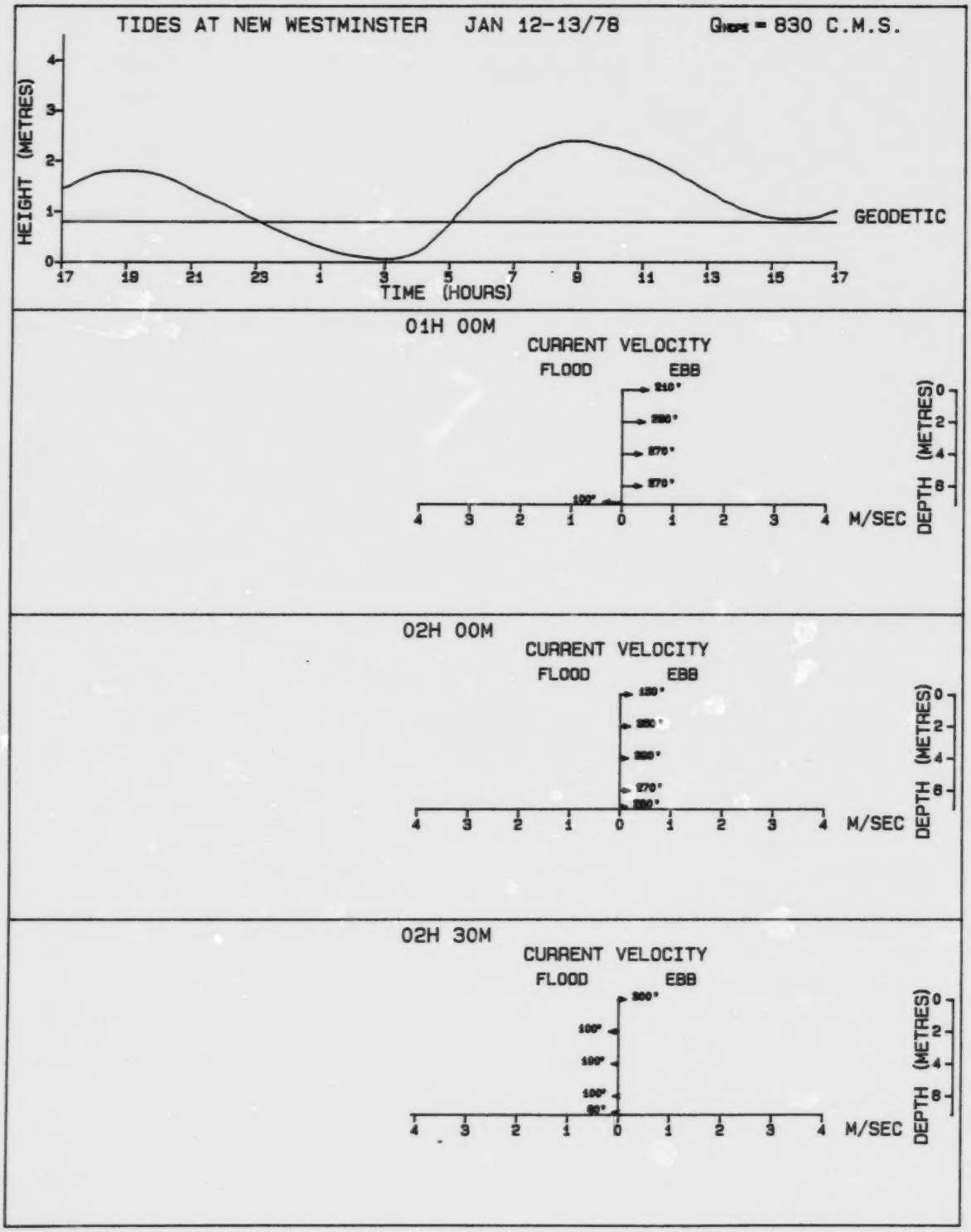
CURRENT MEASUREMENTS AT PATTULLO BR.



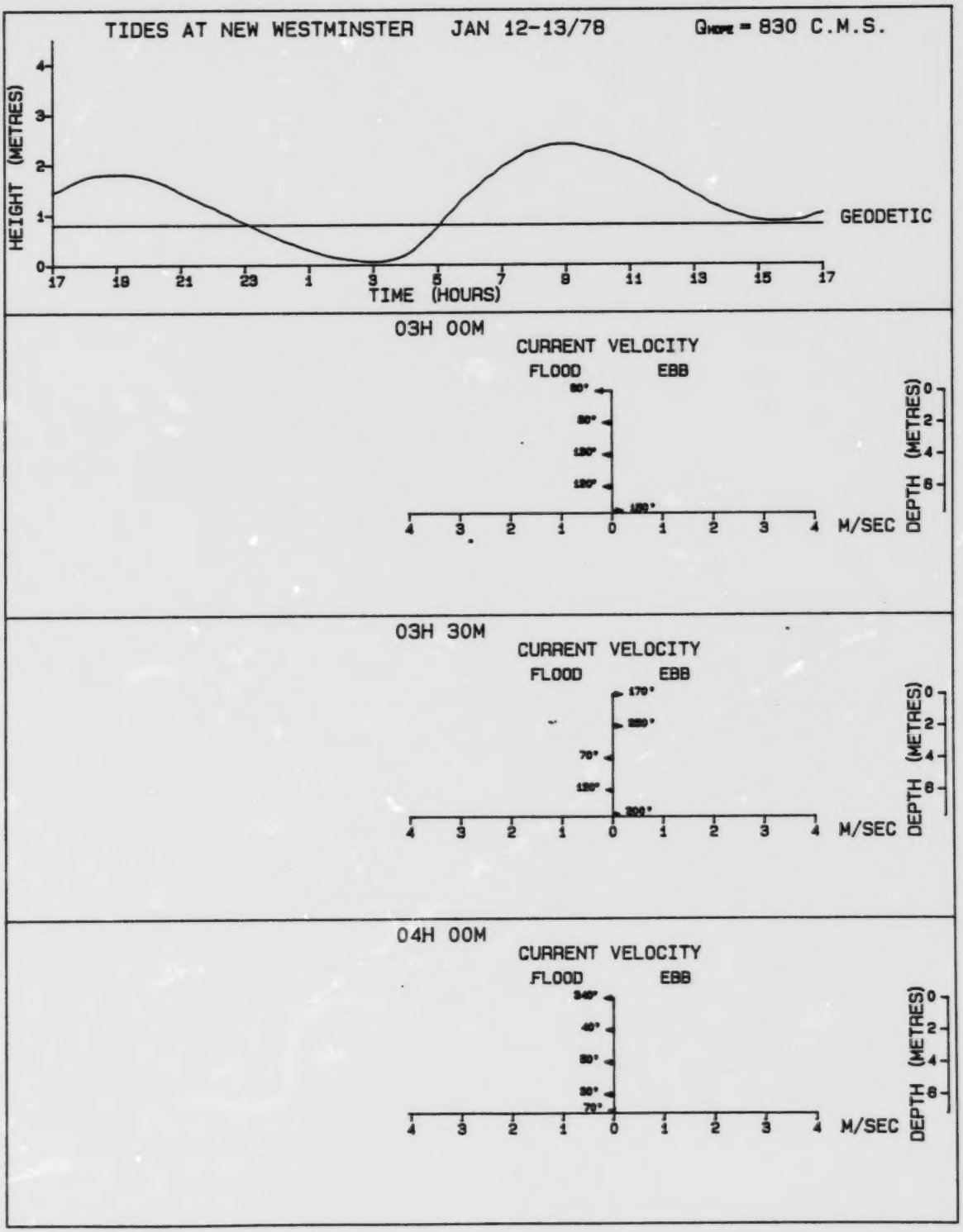
CURRENT MEASUREMENTS AT PATTULLO BR.



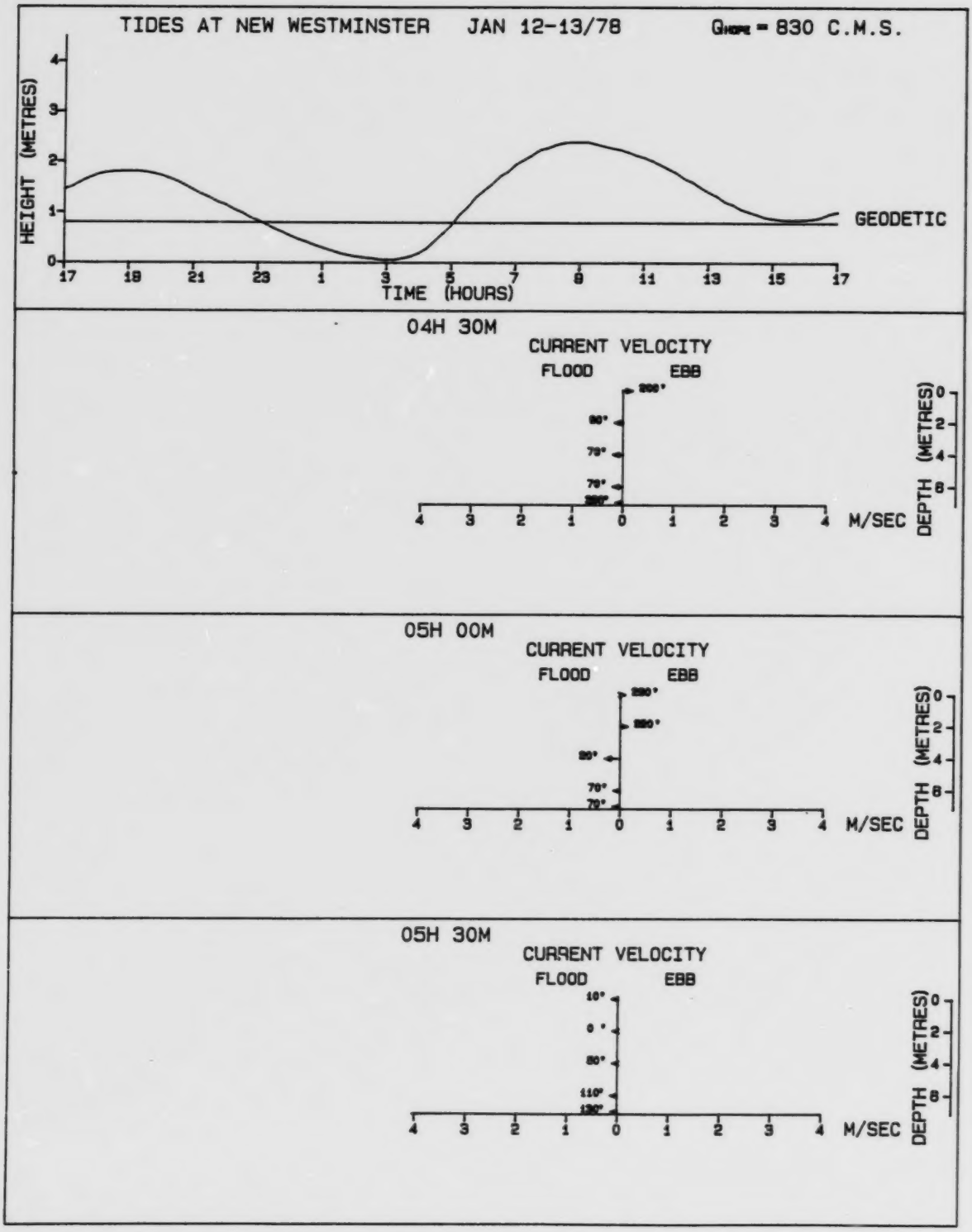
CURRENT MEASUREMENTS AT PATTULLO BR.



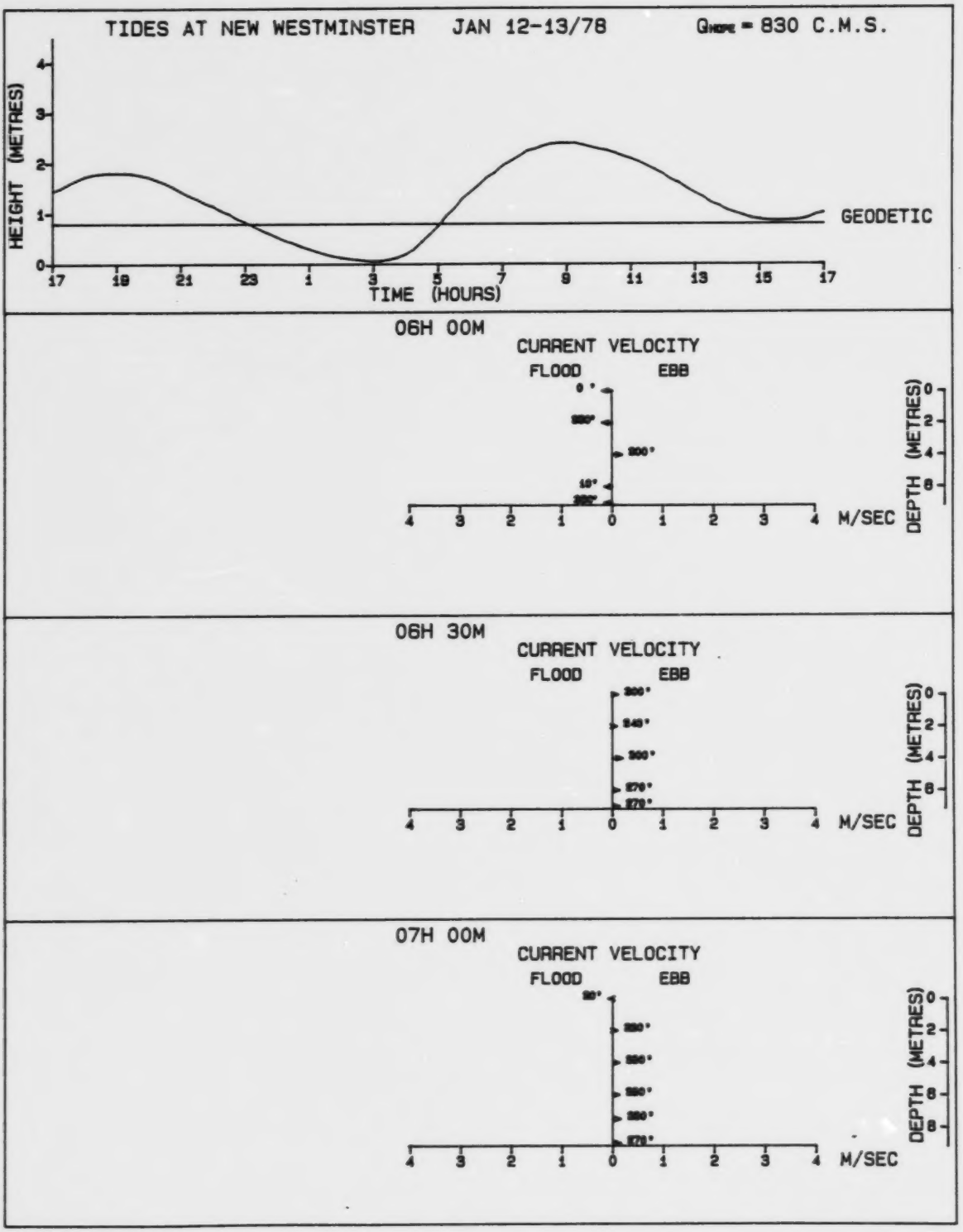
CURRENT MEASUREMENTS AT PATTULLO BR.



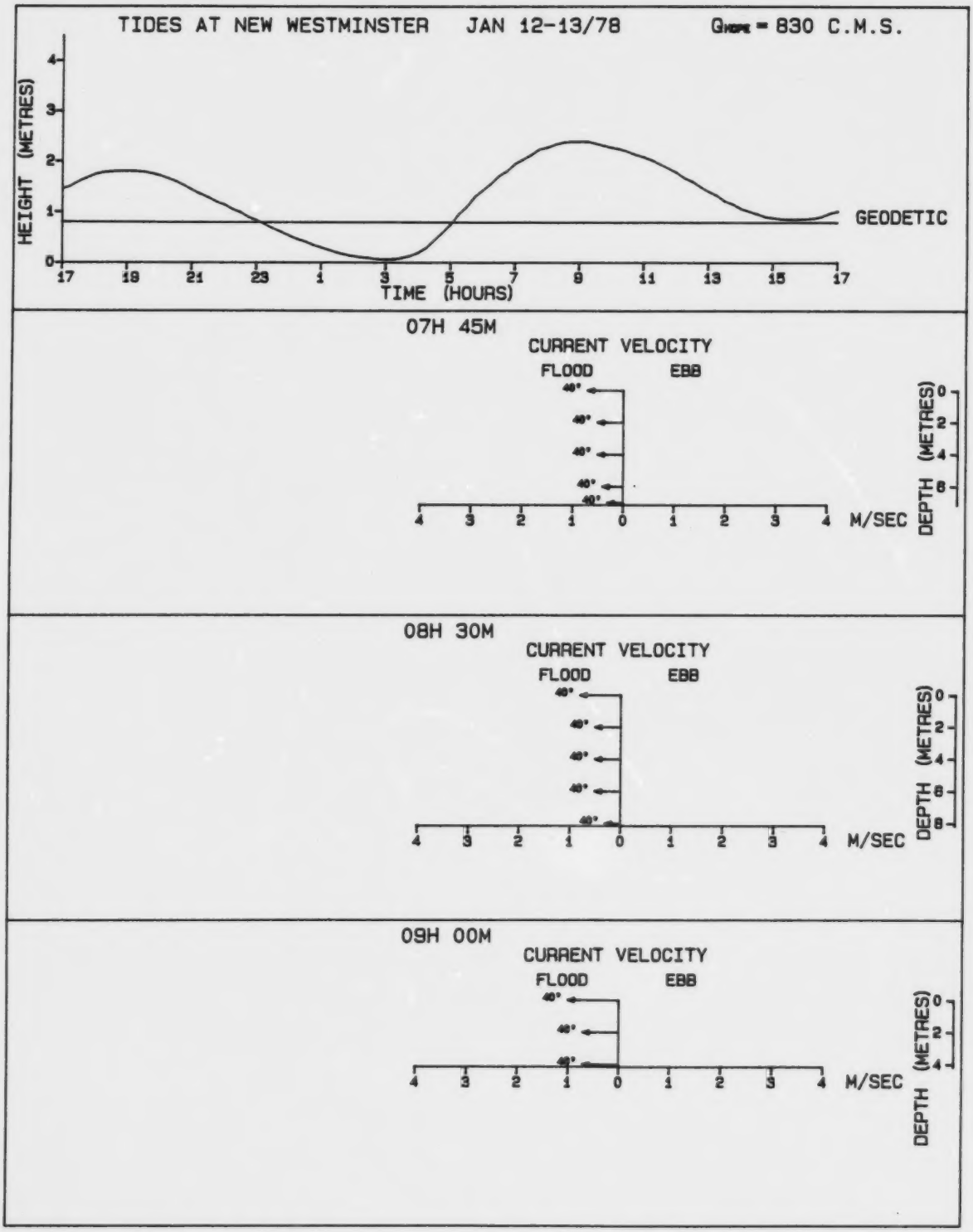
CURRENT MEASUREMENTS AT PATTULLO BR.



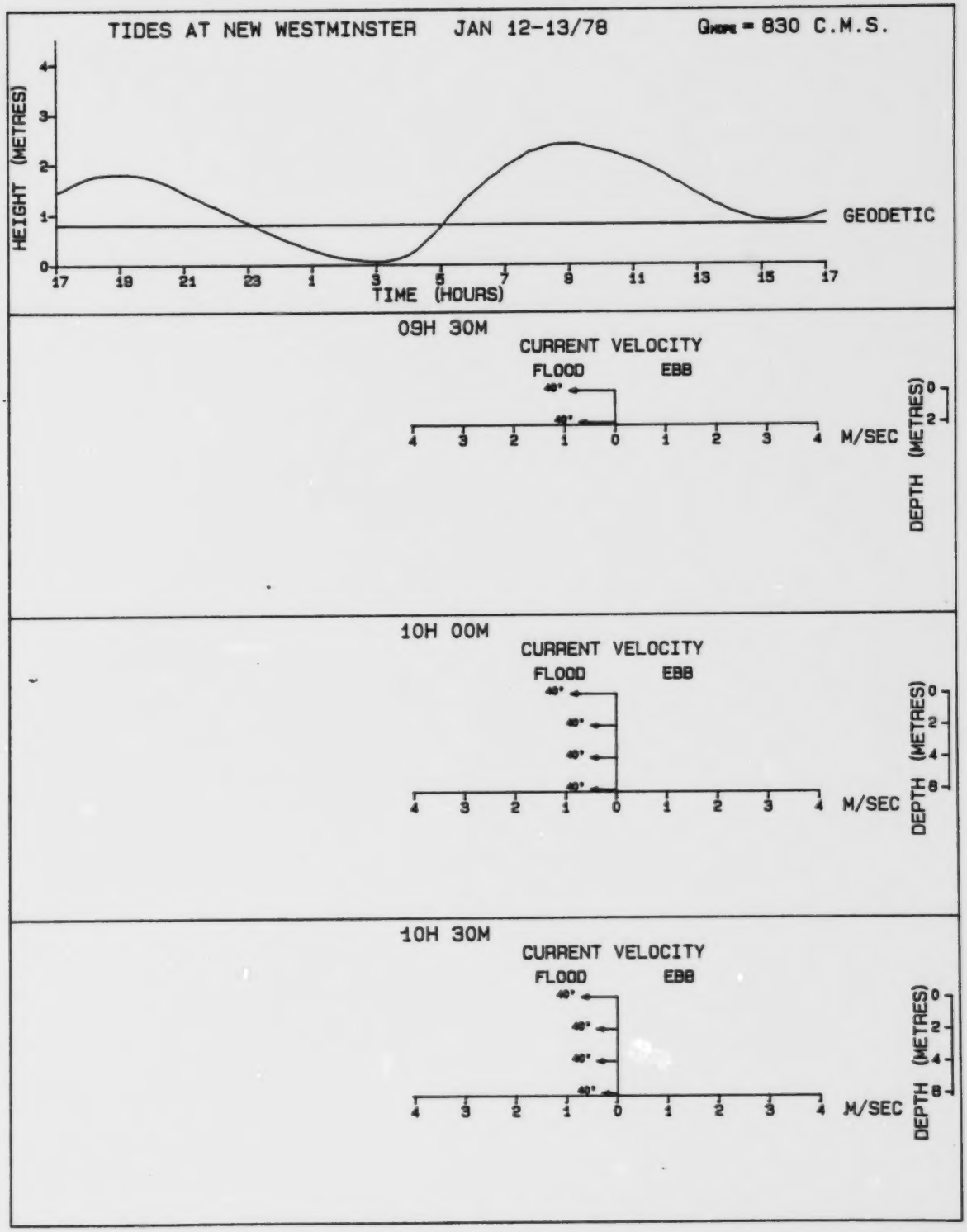
CURRENT MEASUREMENTS AT PATTULLO BR.



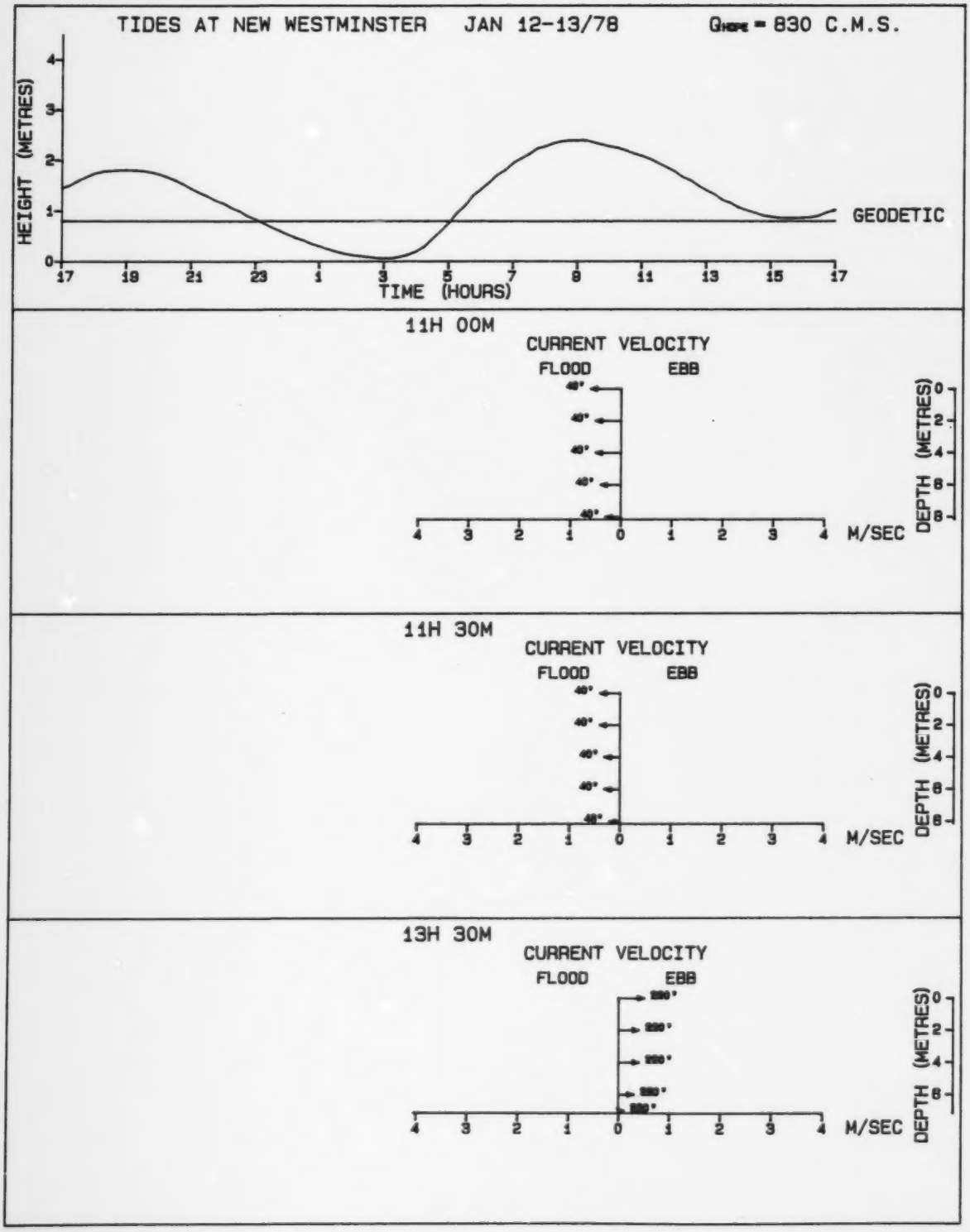
CURRENT MEASUREMENTS AT PATTULLO BR.



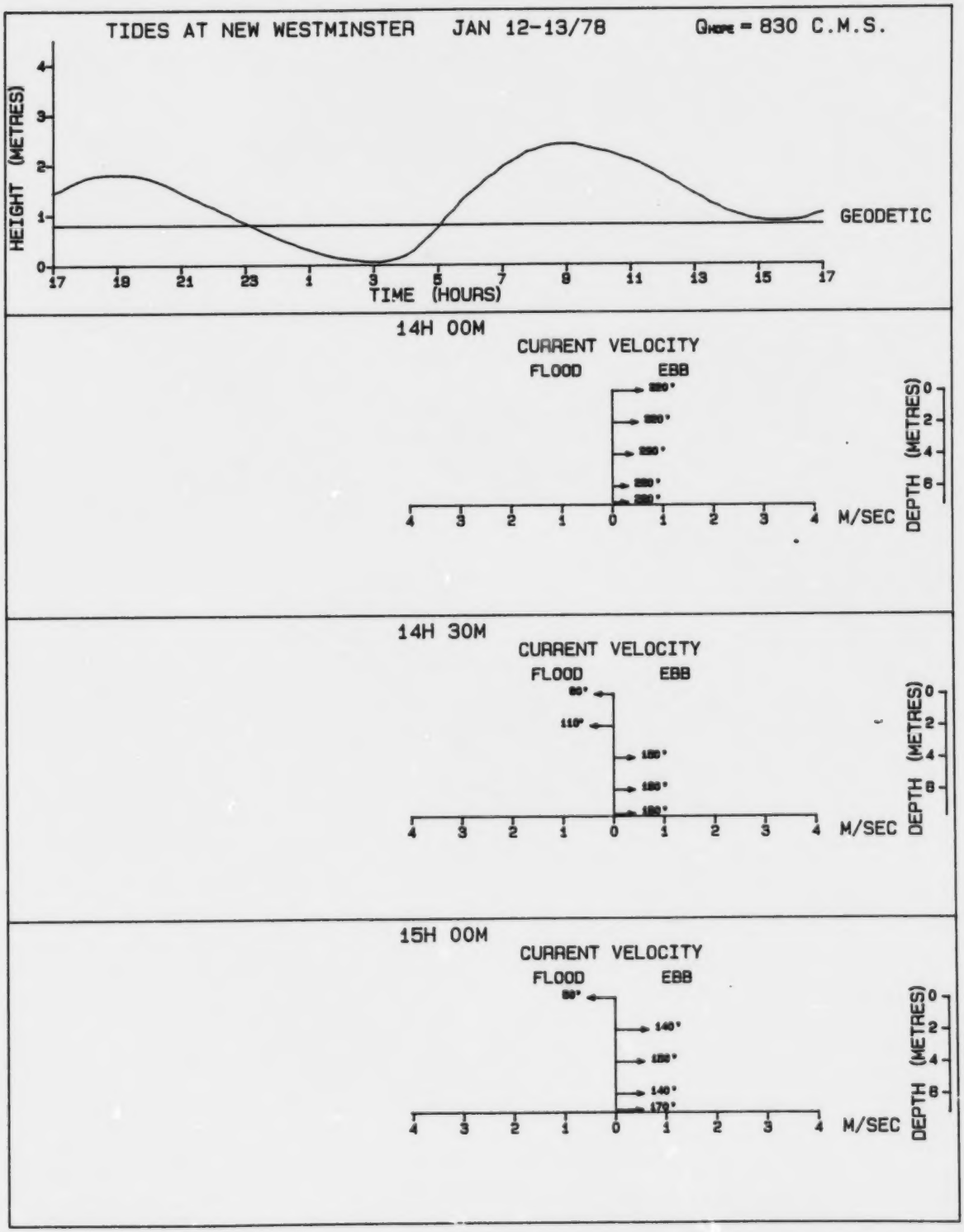
CURRENT MEASUREMENTS AT PATTULLO BR.



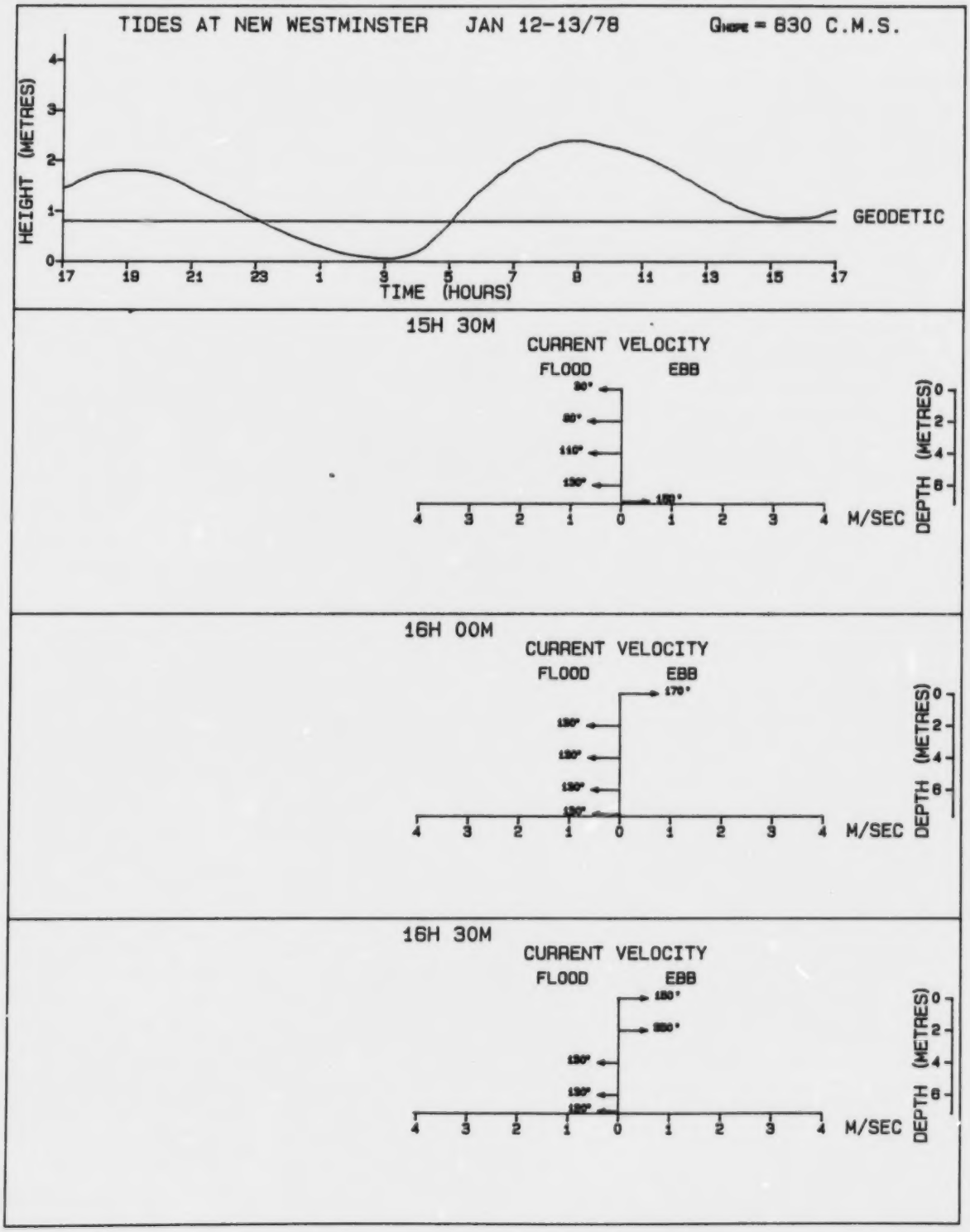
CURRENT MEASUREMENTS AT PATTULLO BR.



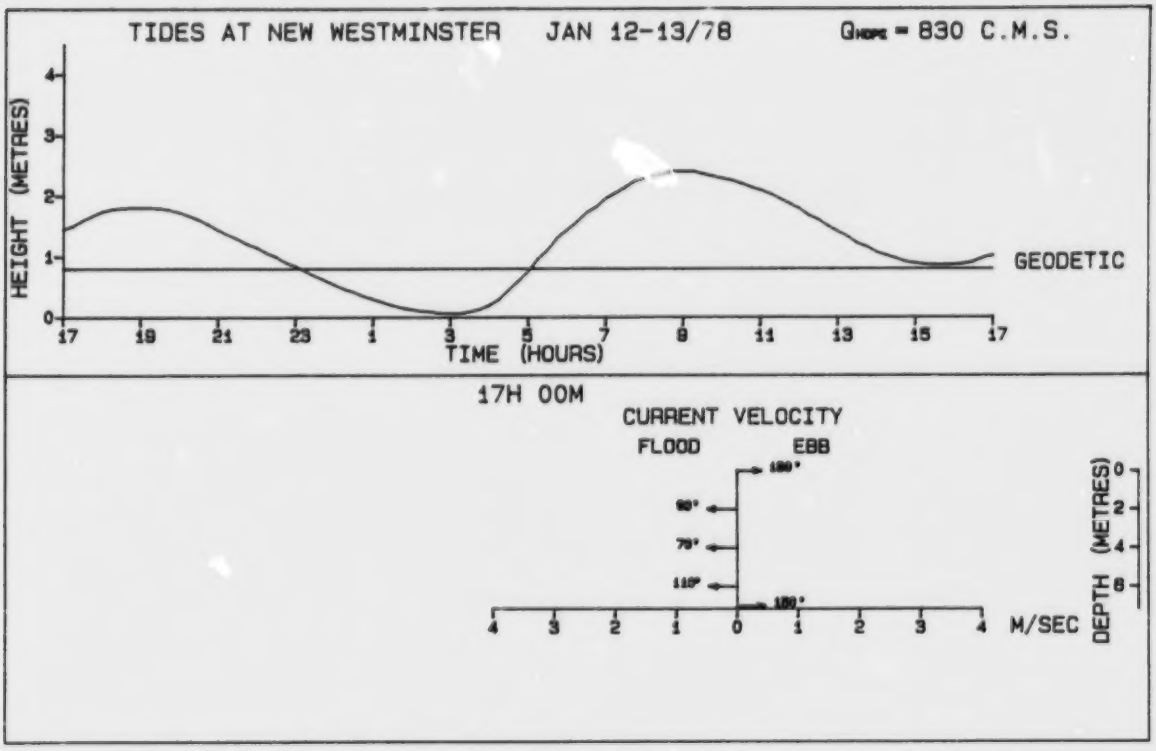
CURRENT MEASUREMENTS AT PATTULLO BR.



CURRENT MEASUREMENTS AT PATTULLO BR.



CURRENT MEASUREMENTS AT PATTULLO BR.



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

FEB 8-9/78 RIVER DISCHARGE AT HOPE = 820 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
16H 55M	0.0	0.00	2.6	0.17		260
	1.0	0.00	2.6			
	2.0	0.00	2.6	0.16	060	
	3.0	0.00	2.6			
	4.0	0.00	2.6	0.13		170
	5.0	0.00	2.6			
	6.0	0.00	2.6	0.13	050	
	7.0	0.00	2.6			
	8.0	0.00	2.6	0.14	040	
	10.0			0.09	070	
18H 30M	0.0	0.00	2.6	0.14		140
	1.0	0.00	2.6			
	2.0	0.00	2.6	0.14	070	
	3.0	0.00	2.6			
	4.0	0.00	2.6	0.07	110	
	5.0	0.00	2.6			
	6.0	0.50	2.7	0.27	130	
	7.0	1.00	2.8			
	8.0	5.00	3.0	0.62	090	
	9.0	8.50	3.5			
	10.0	9.00	3.6			
19H 10M	0.0	0.00	2.6	0.06		150
	1.0	0.00	2.6			
	2.0	0.00	2.6	0.14		310
	3.0	0.00	2.6			
	4.0	0.00	2.6	0.13		250
	5.0	0.00	2.6			
	6.0	0.50	2.6	0.17		160
	7.0	3.00	2.8			
	8.0	9.00	3.6	0.34	320	
	9.0	11.00	3.9			
	10.0	11.00	3.9	0.43		290
19H 30M	0.0	0.00	2.6	0.24		160
	1.0	0.00	2.6			
	2.0	0.00	2.6	0.12	120	
	3.0	0.00	2.6			
	4.0	0.00	2.6	0.19	130	
	5.0	0.50	2.6			
	6.0	1.50	2.7	0.39	100	
	7.0	5.50	3.0			
	8.0	9.50	3.6	0.30		300
	9.0	11.00	3.8	0.19		280
20H 00M	0.0	0.00	2.6	0.36		140

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

FEB 8-9/78 RIVER DISCHARGE AT HOPE = 820 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
20H 00M	1.0	0.00	2.6			
	2.0	0.00	2.6	0.24	130	
	3.0	0.00	2.6			
	4.0	1.50	2.7	0.16	120	
	5.0	2.00	2.8			
	6.0	4.00	2.8	0.16		300
	7.0	6.00	3.1			
	8.0	11.50	3.8	0.14		140
	9.0	12.00	4.0	0.15		180
20H 30M	0.0	0.00	2.6	0.53		***
	1.0	0.00	2.6			
	2.0	0.00	2.6	0.44		170
	3.0	0.20	2.6			
	4.0	0.50	2.7	0.41		180
	5.0	1.20	2.8			
	6.0	4.20	3.0	0.31		170
	7.0	5.10	3.0			
	8.0	10.00	3.4	0.22	020	
	9.0			0.63	040	
21H 00M	0.0	0.00	2.6	0.73		***
	1.0	0.00	2.6			
	2.0	0.00	2.6	0.49		170
	3.0	0.00	2.7			
	4.0	0.50	2.7	0.37		160
	5.0	4.70	3.0			
	6.0	6.50	3.2	0.37		170
	7.0	8.00	3.4			
	8.0	8.00	3.4	0.25	040	
21H 30M	0.0	0.00	2.6	0.73		***
	1.0	0.00	2.6			
	2.0	0.20	2.6	0.43		190
	3.0	0.50	2.7			
	4.0	0.70	2.8	0.50		250
	5.0	3.50	3.0			
	6.0	5.50	3.2	0.34	110	
	7.0	6.00	3.2			
	8.0	6.00	3.2	0.27		150
22H 00M	0.0	0.00	2.8	0.74		***
	1.0	0.00	2.8			
	2.0	0.00	2.8	0.49		190
	3.0	1.00	3.0			
	4.0	2.00	3.0	0.39		210
	5.0	3.00	3.2			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

FEB 8-9/78 RIVER DISCHARGE AT HOPE = 820 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
22H 00M	6.0	4.50	3.3	0.44	130	
	7.0	4.50	3.3	0.43	130	
22H 30M	0.0	0.00	2.9	0.73		***
	1.0	0.50	3.0			
	2.0	0.50	3.0	0.43		190
	3.0	1.50	3.0			
	4.0	2.00	3.1	0.49		190
	5.0	2.50	3.2			
	6.0	2.50	3.2			
	7.0	3.00	3.2			
23H 00M	0.0	0.00	3.0	0.79		***
	1.0	0.00	3.0			
	2.0	0.00	3.0			
	3.0	0.00	3.0			
	4.0	0.00	3.0			
	5.0	0.00	3.0			
	6.0	0.00	3.0			
	7.0	0.00	3.0			
23H 30M	0.0	0.00	3.0	0.87		***
	1.0	0.00	3.0			
	2.0	0.00	3.0			
	3.0	0.00	3.0			
	4.0	0.00	3.0			
	5.0	0.00	3.0			
	6.0	0.00	3.0			
	7.0	0.00	3.0			
02H 30M	0.0			0.37		150
	2.0			0.43		190
	6.0			0.30		200
03H 00M	0.0	0.00	3.2	0.37		140
	1.0	0.00	3.2			
	2.0	0.00	3.2	0.31		160
	3.0	0.00	3.2			
	4.0	0.00	3.2	0.26		200
	5.0	0.00	3.2			
	6.0	0.00	3.2			
	7.0	0.00	3.2	0.22		190
03H 30M	0.0			0.18	100	
	2.0			0.17		160
	4.0			0.06		150
	7.0			0.14		210

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

FEB 8-9/78 RIVER DISCHARGE AT HOPE = 820 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
04H 00M	0.0			0.00	000	
	2.0			0.00	000	
	4.0			0.00	000	
	7.0			0.00	000	
04H 30M	0.0			0.25	120	
	2.0			0.15	030	
	4.0			0.15	030	
	6.0			0.15	030	
	8.5			0.15	040	
05H 00M	0.0	0.00	3.2	0.31	080	
	1.0	0.00	3.2			
	2.0	0.00	3.2	0.37	070	
	3.0	0.00	3.2			
	4.0	0.00	3.2	0.33	040	
	5.0	0.00	3.2			
	6.0	0.00	3.2	0.22	060	
	7.0	0.00	3.2			
	9.0			0.18	020	
05H 30M	0.0			0.46	090	
	2.0			0.39	050	
	4.0			0.39	040	
	6.0			0.34	050	
	8.0			0.33	040	
	9.0			0.25	040	
06H 00M	0.0			0.61	060	
	2.0			0.59	040	
	4.0			0.56	030	
	6.0			0.50	040	
	8.0			0.46	030	
	9.0			0.43	030	
06H 30M	0.0	0.00	3.2	0.73	080	
	1.0	0.00	3.2			
	2.0	0.00	3.2	0.58	030	
	3.0	0.00	3.2			
	4.0	0.00	3.2	0.55	030	
	5.0	0.00	3.2			
	6.0	0.00	3.2	0.55	030	
	7.0	0.00	3.2			
	9.0			0.55	030	
07H 15M	0.0	0.50	3.1	0.92	080	

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

FEB 8-9/78 RIVER DISCHARGE AT HOPE = 820 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
07H 15M	1.0	0.50	3.1			
	2.0	0.50	3.1	0.67	020	
	3.0	0.50	3.1			
	4.0	0.50	3.1	0.55	020	
	5.0	0.50	3.1			
	6.0	0.50	3.1	0.58	020	
	7.0	0.50	3.1			
	8.0	0.50	3.1	0.55	020	
	9.0	0.50	3.1	0.55	030	
	10.0	0.50	3.1			
07H 35M	0.0	0.70	3.1	0.86	070	
	1.0	0.70	3.1			
	2.0	0.70	3.1	0.86	030	
	3.0	0.70	3.1			
	4.0	0.70	3.1	0.55	020	
	5.0	0.70	3.1			
	6.0	0.70	3.1	0.55	020	
	7.0	0.70	3.1			
	8.0	0.70	3.1	0.43	020	
	9.0	0.70	3.1	0.52	030	
	10.0	0.70	3.1			
07H 45M	0.0	1.00	3.2			
	1.0	1.00	3.2			
	2.0	1.00	3.2			
	3.0	1.00	3.2			
	4.0	1.00	3.2			
	5.0	1.00	3.2			
	6.0	1.00	3.2			
	7.0	1.00	3.2			
	8.0	1.00	3.2			
	9.0	1.00	3.2			
	10.0	1.00	3.2			
08H 00M	0.0	0.70	3.2	0.64	080	
	1.0	0.70	3.2			
	2.0	1.00	3.2	0.52	040	
	3.0	1.00	3.2			
	4.0	1.00	3.2	0.55	030	
	5.0	1.20	3.2			
	6.0	1.20	3.2	0.55	020	
	7.0	1.50	3.2			
	8.0	1.50	3.2	0.43	020	
	9.0	1.50	3.2	0.46	020	
	10.0	1.50	3.2			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

FEB 8-9/78 RIVER DISCHARGE AT HOPE = 820 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
08H 25M	0.0	1.20	3.2	0.26	090	
	1.0	1.50	3.2			
	2.0	1.50	3.2	0.31	040	
	3.0	2.50	3.2			
	4.0	2.50	3.2	0.30	050	
	5.0	2.50	3.3			
	6.0	2.50	3.3	0.31	040	
	7.0	2.50	3.3			
	8.0	3.00	3.3	0.32	050	
	9.0	3.00	3.3	0.34	040	
	10.0	3.20	3.3			
09H 00M	0.0	2.50	3.3	0.13	060	
	1.0	2.50	3.3			
	2.0	2.70	3.3	0.16	040	
	3.0	2.70	3.3			
	4.0	3.00	3.3	0.19	050	
	5.0	3.00	3.4			
	6.0	3.50	3.4	0.28	050	
	7.0	6.00	3.6			
	8.0	6.50	3.8	0.31	050	
	9.0	6.50	3.8	0.31	060	
	10.0	6.50	3.8			
09H 15M	0.0	1.50	3.3			
	1.0	2.50	3.3			
	2.0	2.50	3.3			
	3.0	2.70	3.3			
	4.0	3.00	3.3			
	5.0	3.50	3.4			
	6.0	4.50	3.4			
	7.0	6.00	3.7			
	8.0	7.00	3.8			
	9.0	8.00	3.9			
	10.0	8.00	4.0			
09H 30M	0.0	1.50	3.2	0.18		160
	1.0	2.00	3.2			
	2.0	2.50	3.2	0.09		200
	3.0	2.70	3.3			
	4.0	3.20	3.4	0.07	030	
	5.0	3.50	3.4			
	6.0	4.00	3.4	0.12	090	
	7.0	4.50	3.5			
	8.0	5.50	3.5	0.32	040	
	9.0	8.50	4.1	0.16	030	

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

FEB 8-9/78 RIVER DISCHARGE AT HOPE = 820 CU.M/SEC

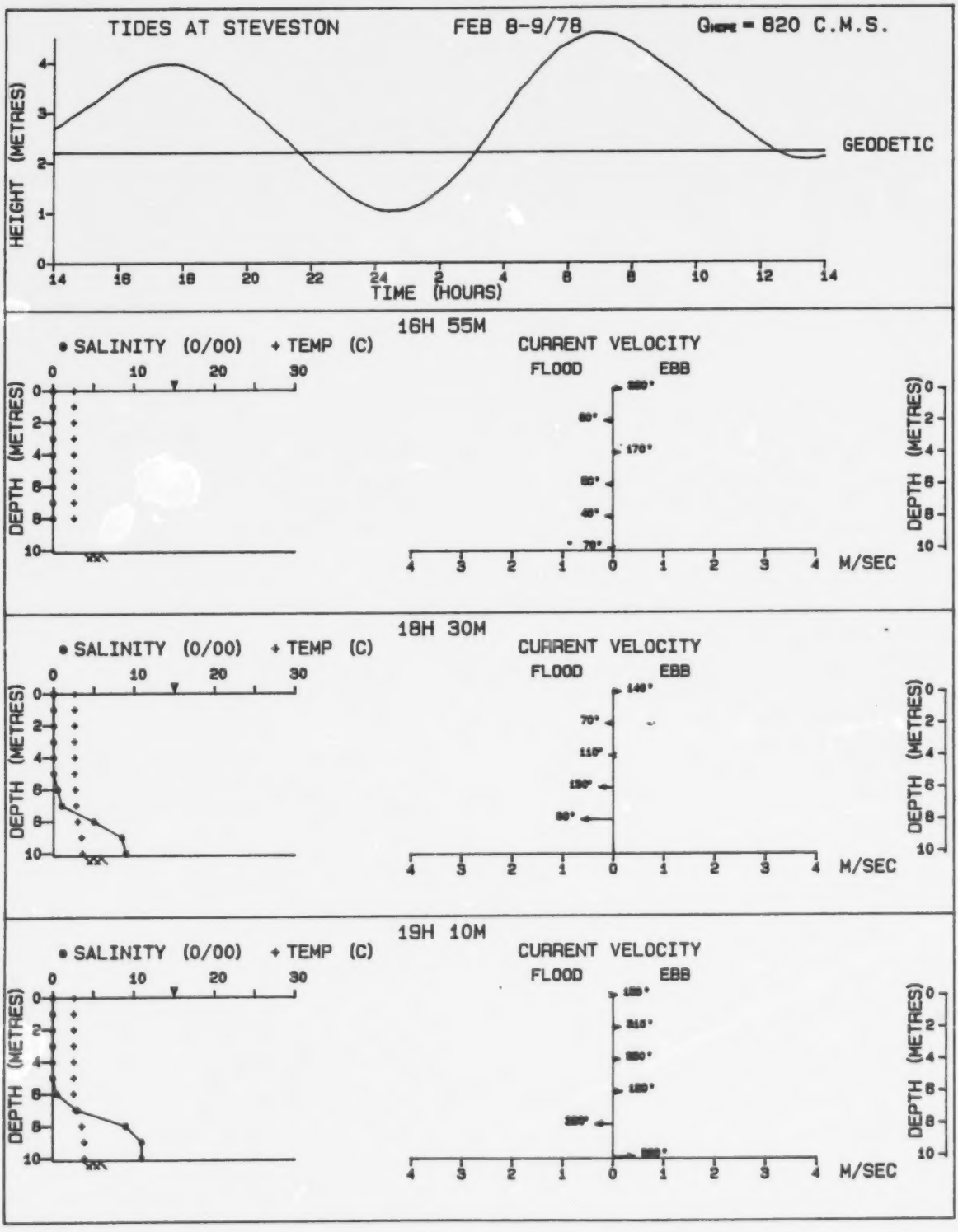
TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
10H 00M	0.0	2.00	3.2	0.34		***
	1.0	2.00	3.2			
	2.0	2.20	3.2	0.09		150
	3.0	3.50	3.4			
	4.0	4.00	3.4	0.09		290
	5.0	4.70	3.5			
	6.0	6.00	3.6	0.09	110	
	7.0	9.50	4.0			
	8.0	9.50	4.1	0.00	000	
	9.0	9.50	4.1	0.06		190
10H 30M	0.0	1.50	3.2	0.55		***
	1.0	1.50	3.2			
	2.0	1.50	3.2	0.41		140
	3.0	3.50	3.3			
	4.0	5.50	3.5	0.25		260
	5.0	5.50	3.7			
	6.0	6.00	3.7	0.11		200
	7.0	8.00	4.0			
	8.0	10.00	4.1	0.06		270
	9.0	11.00	4.4	0.00	000	
11H 00M	0.0	0.50	3.2	0.98		***
	1.0	0.50	3.2			
	2.0	1.00	3.2	0.61		210
	3.0	2.00	3.2			
	4.0	4.50	3.4	0.42		190
	5.0	6.00	3.6			
	6.0	9.50	4.0	0.36		190
	7.0	10.00	4.2			
	8.0	11.00	4.3	0.15		160
11H 30M	0.0	0.00	3.2	0.95		***
	1.0	0.00	3.2			
	2.0	0.50	3.2			
	3.0	1.00	3.2			
	4.0	1.50	3.2			
	5.0	4.50	3.4			
	6.0	7.00	3.6			
	7.0	9.00	4.0			
	8.0	9.50	4.2			
12H 00M	0.0	0.00	3.2	1.08		***
	1.0	0.00	3.2			
	2.0	0.70	3.2			
	3.0	1.00	3.2			
	4.0	1.70	3.2			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32

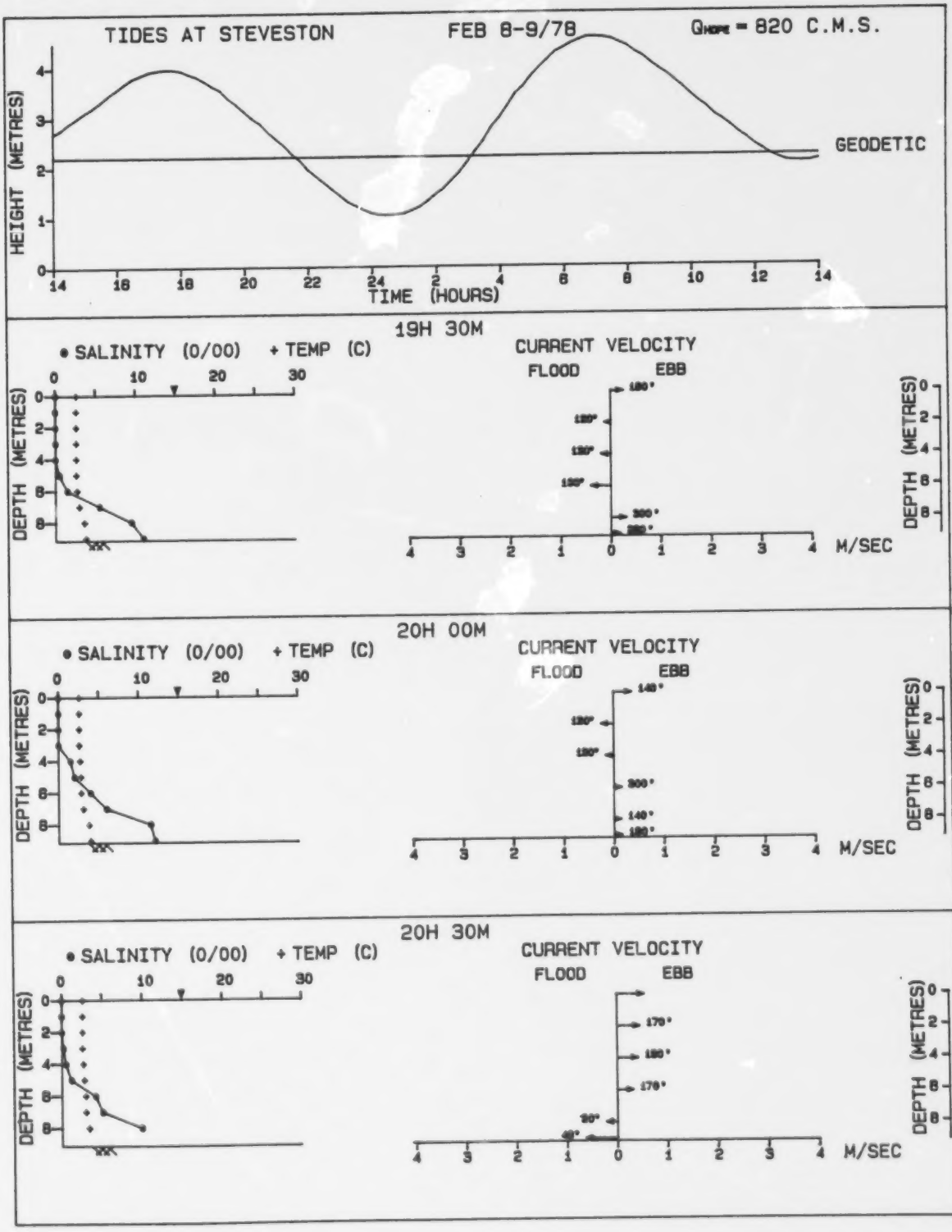
FEB 8-9/78 RIVER DISCHARGE AT HOPE = 820 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
12H 00M	5.0	3.00	3.2			
	6.0	5.70	3.5			
	7.0	6.50	3.8			
	8.0	7.00	3.8			
12H 30M	0.0	0.00	3.2	1.16		***
	1.0	0.00	3.2			
	2.0	1.00	3.2			
	3.0	1.00	3.2			
	4.0	1.20	3.2			
	5.0	1.50	3.3			
	6.0	1.70	3.3			
	7.0	2.00	3.3			
	8.0	2.00	3.4			
13H 00M	0.0	0.00	3.2	0.73		170
	1.0	0.00	3.2			
	2.0	0.00	3.2			
	3.0	0.00	3.2			
	4.0	0.00	3.2			
	5.0	0.00	3.2			
	6.0	0.00	3.2			
	7.0	0.00	3.2			
	8.0	0.00	3.2			

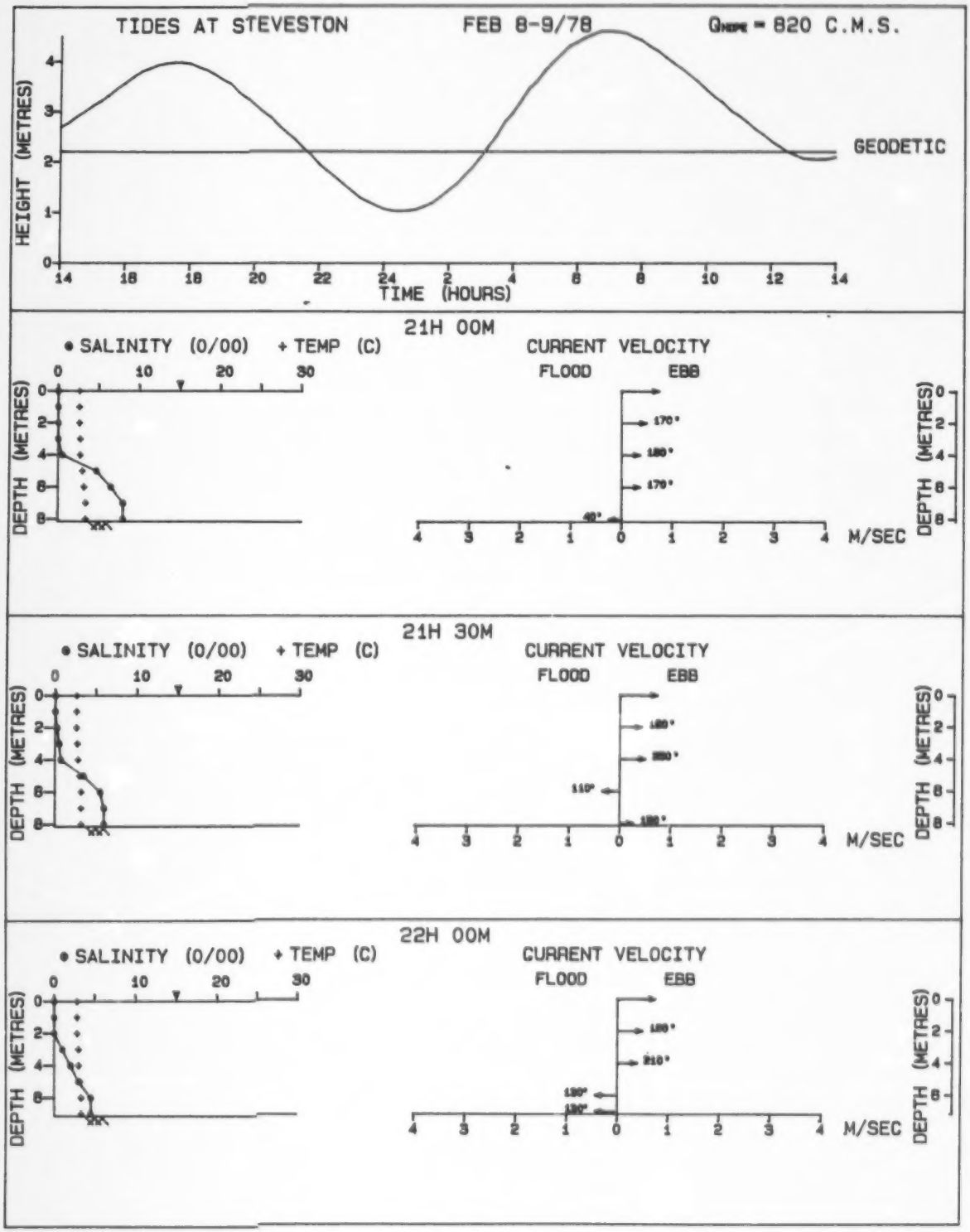
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



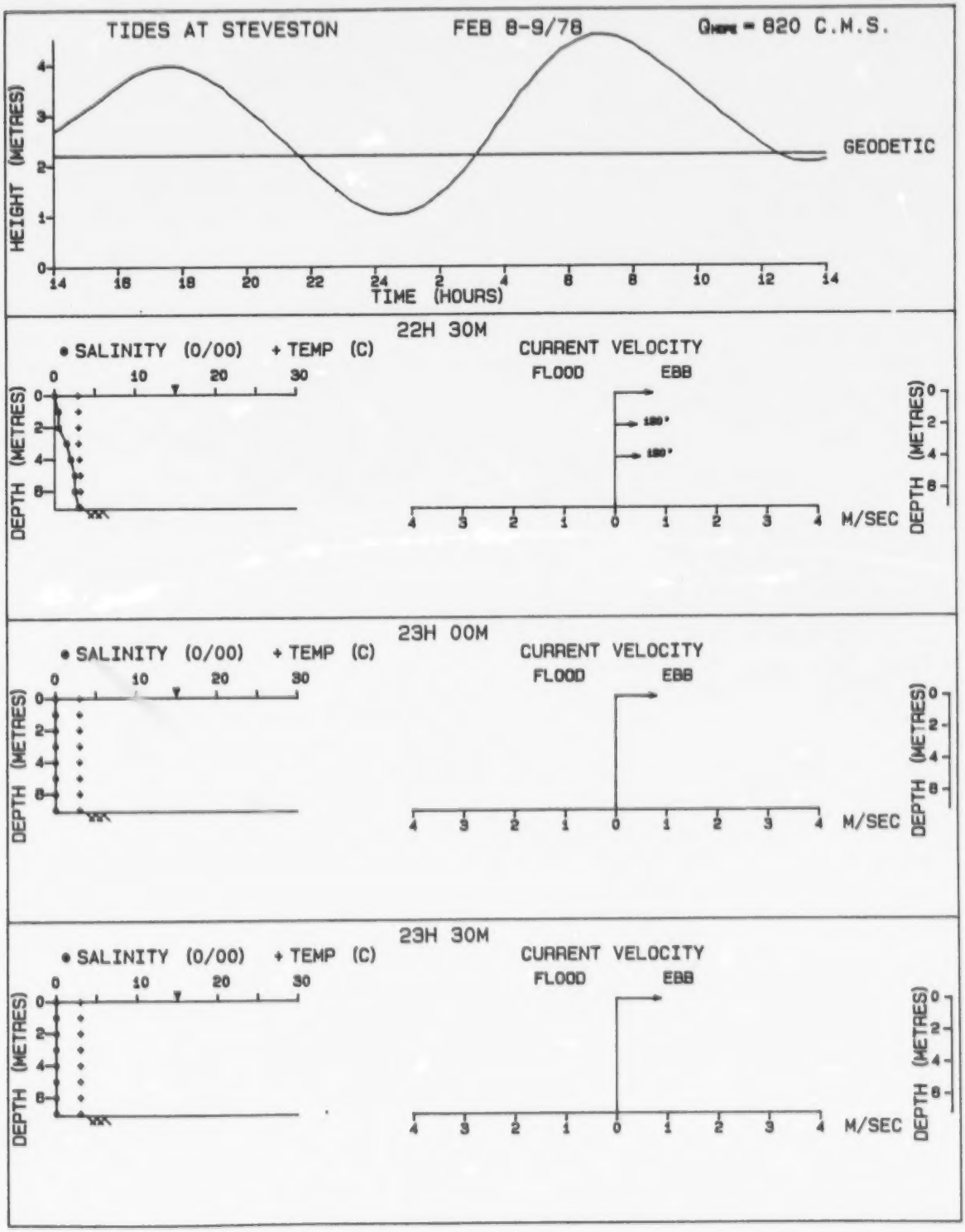
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



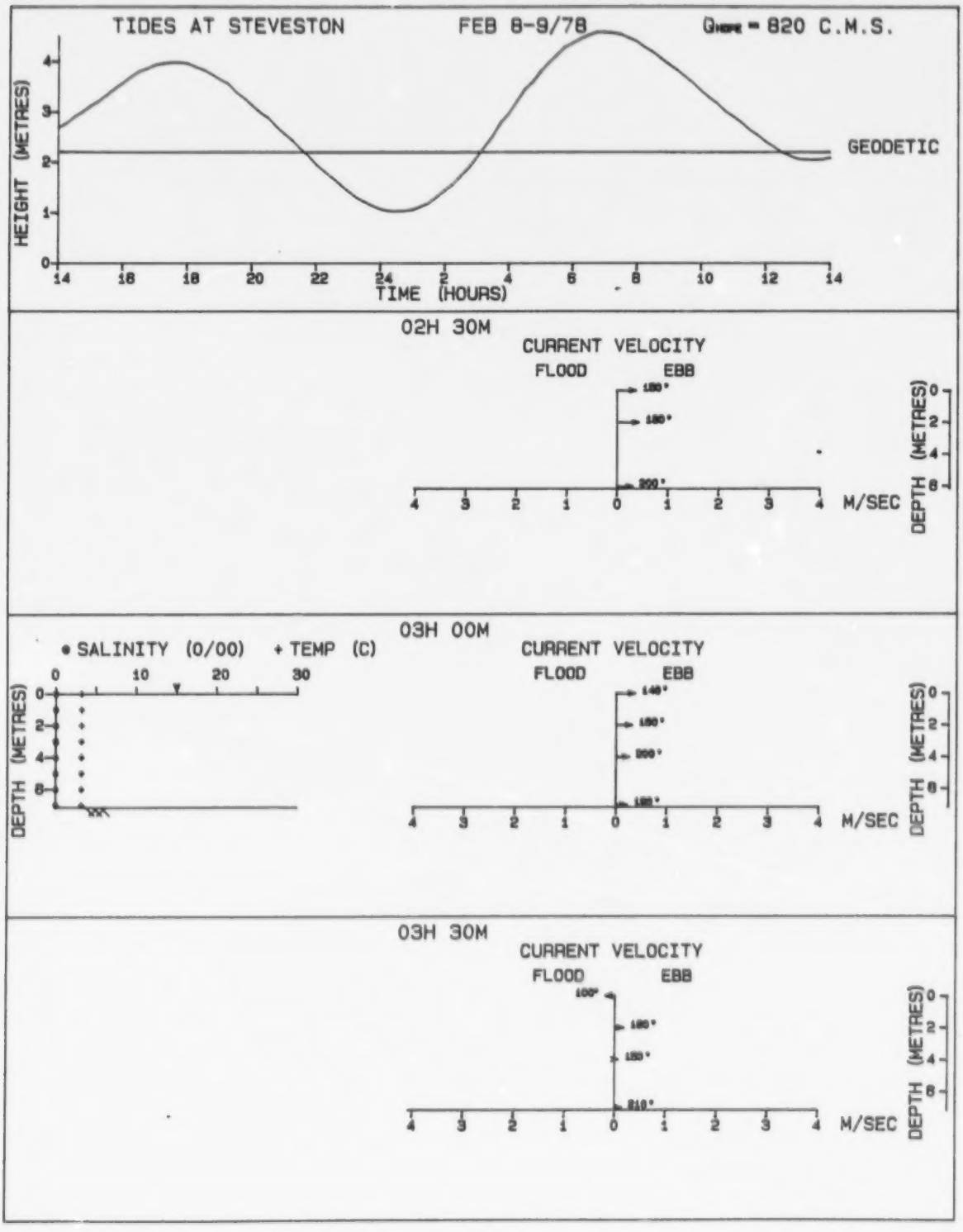
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



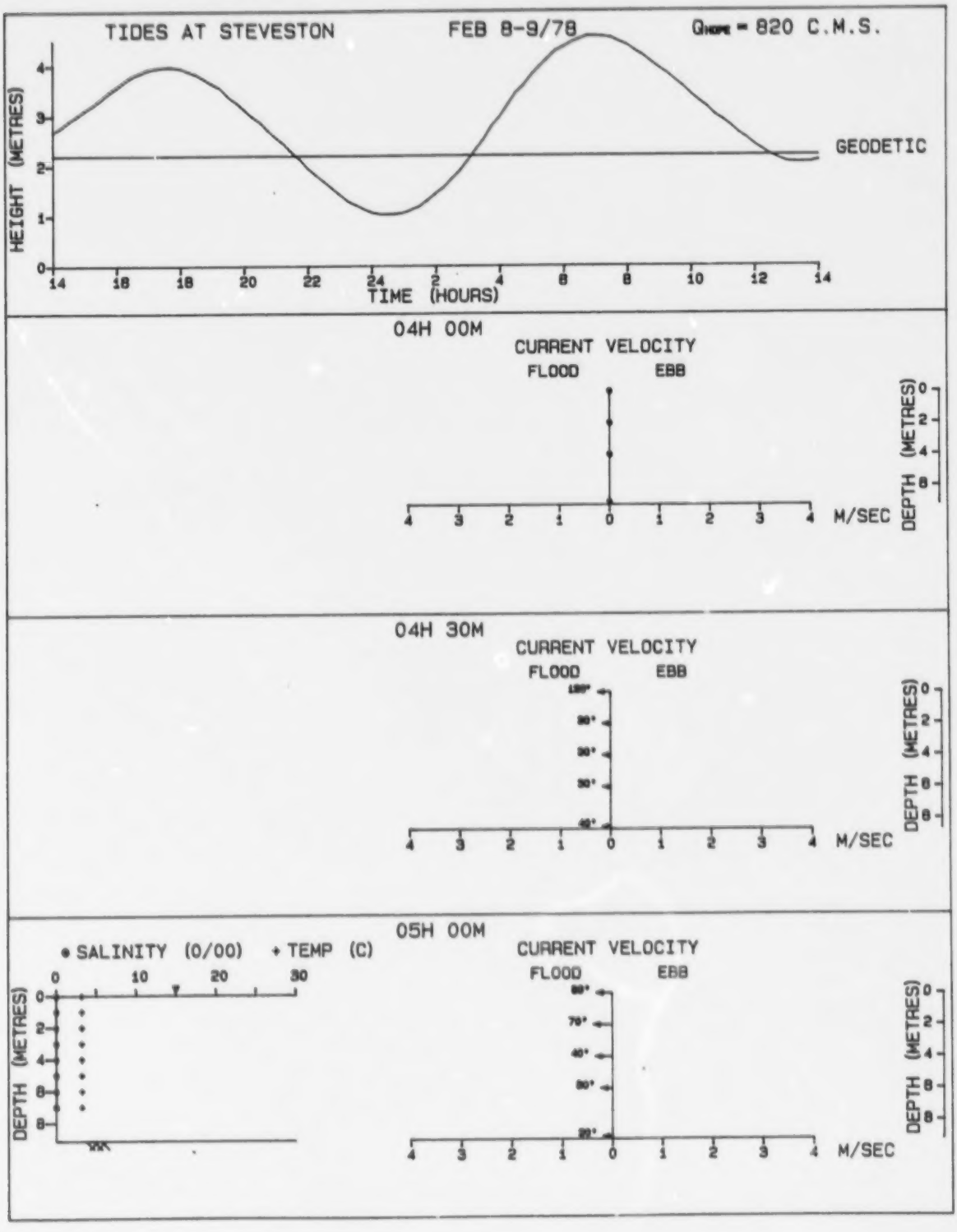
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



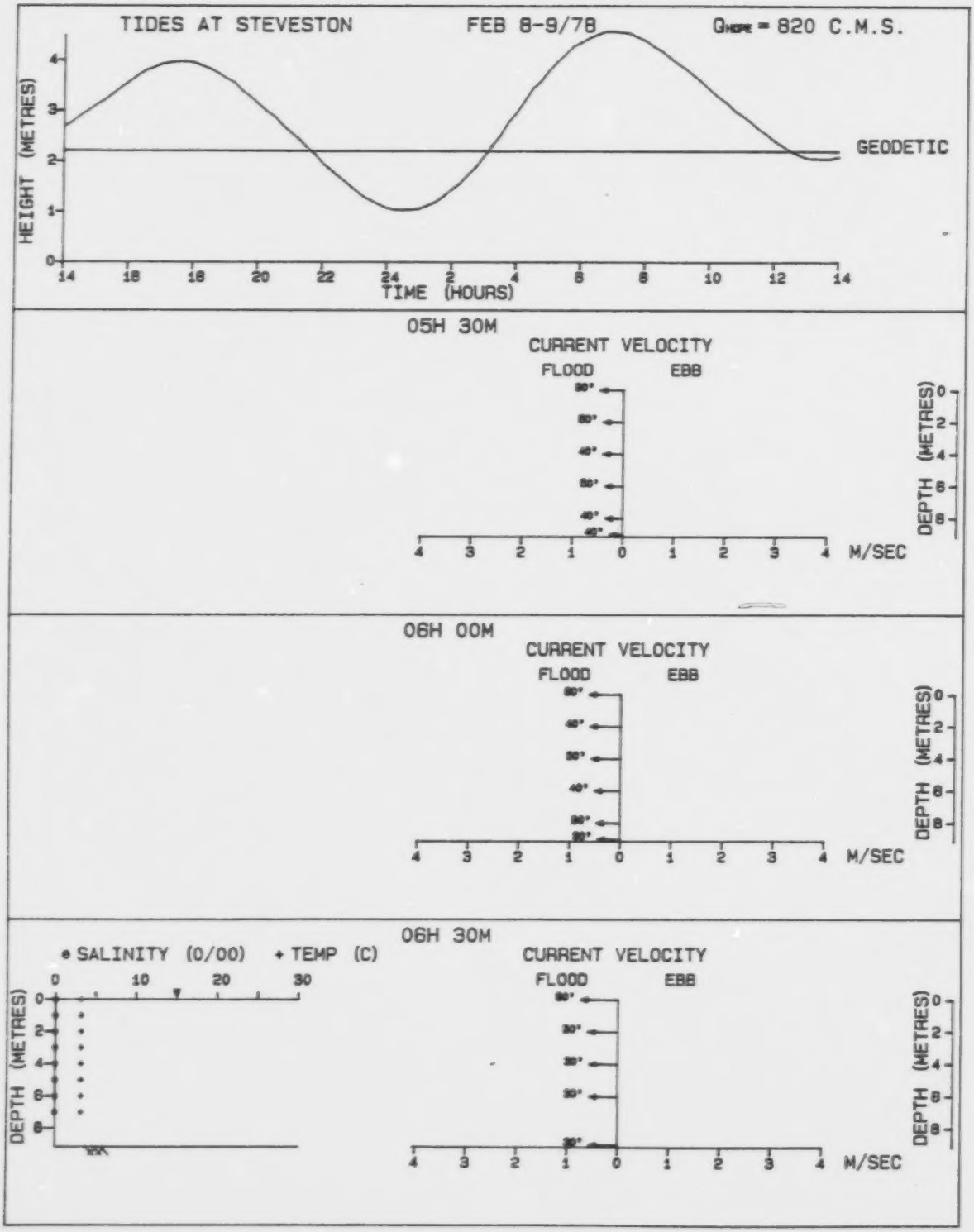
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



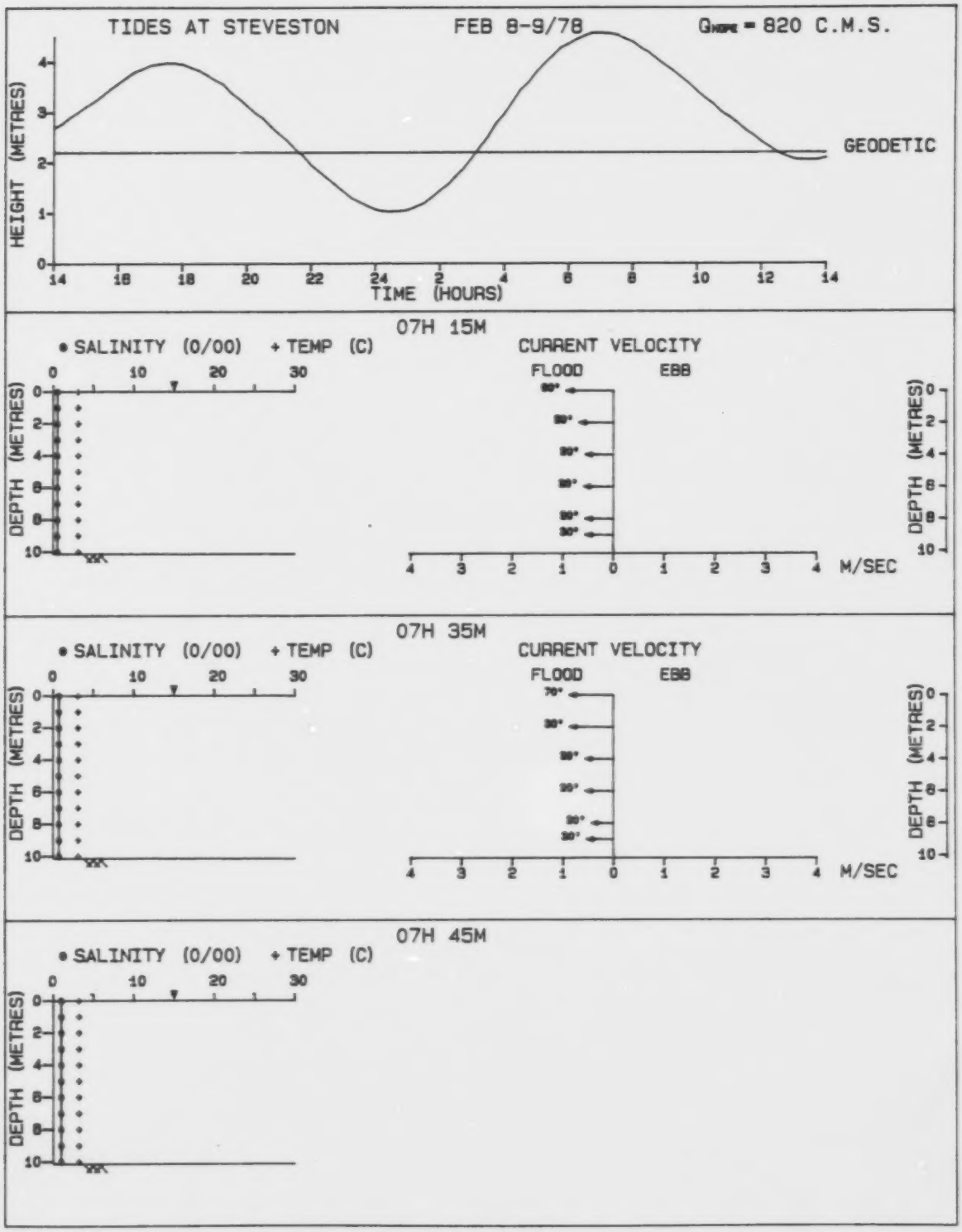
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



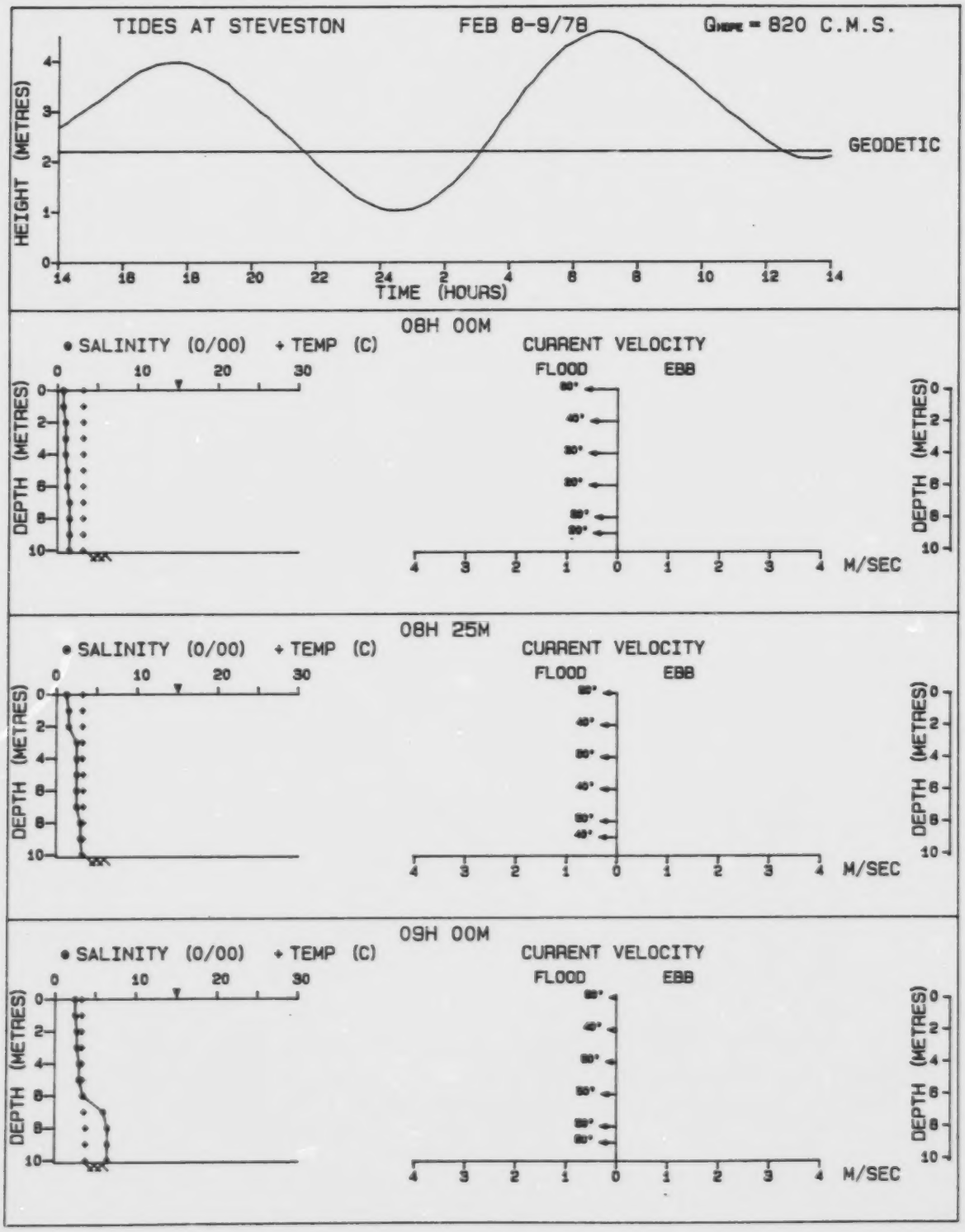
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



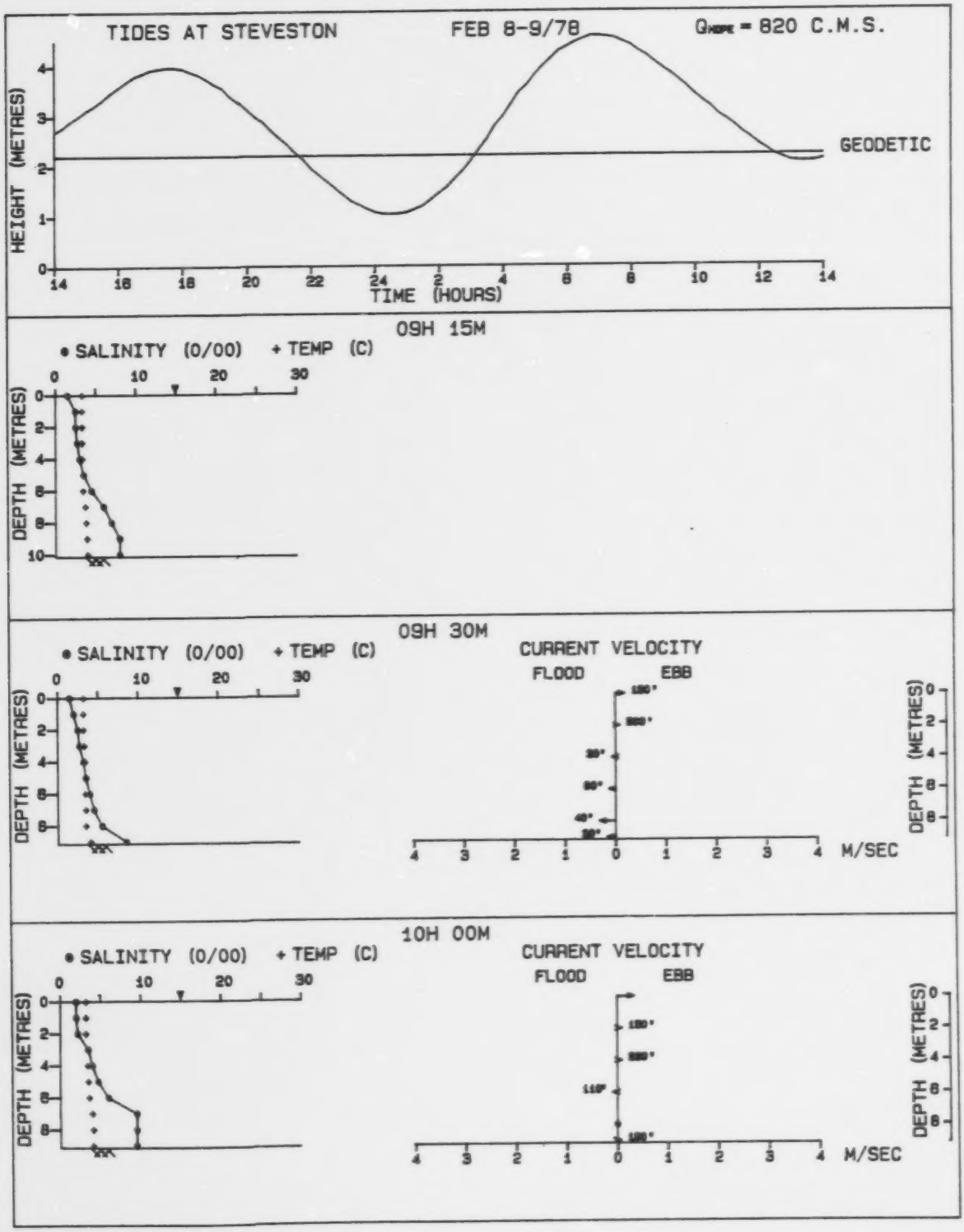
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



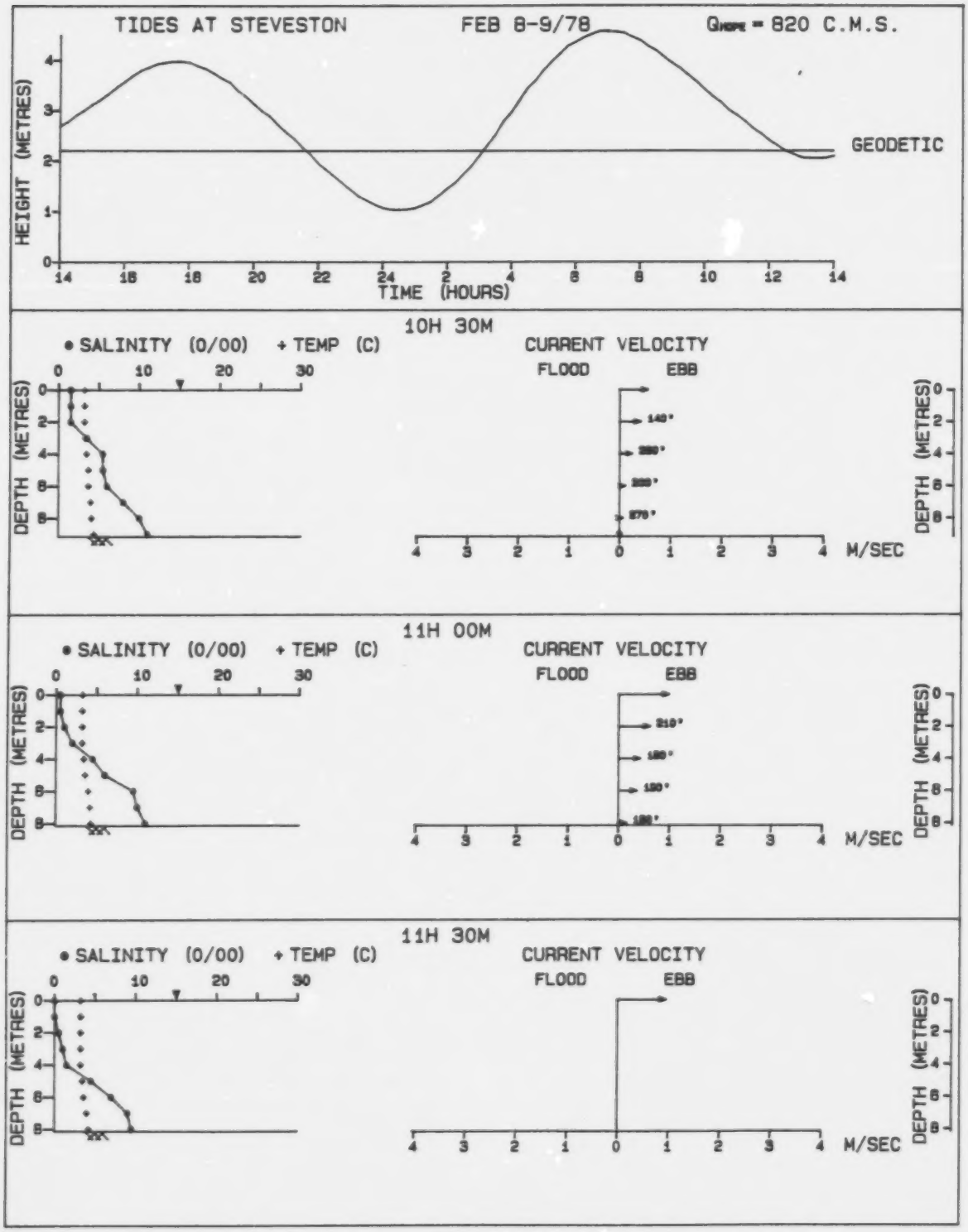
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



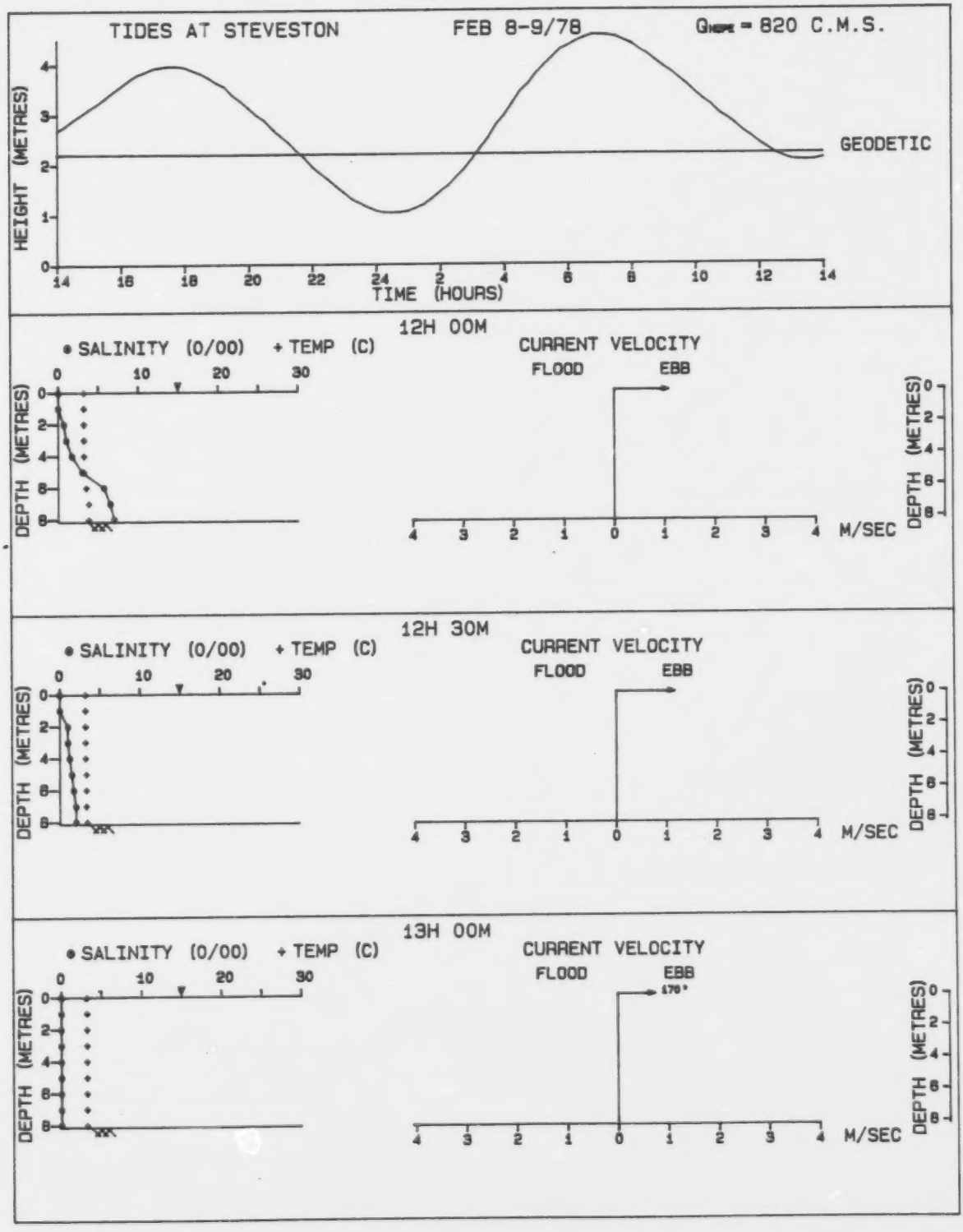
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S32



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34

FEB 9-10/78 RIVER DISCHARGE AT HOPE = 820 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
16H 00M	0.0			0.24		***
	2.0			0.27		320
	4.0			0.24		290
	5.5			0.18		310
16H 30M	0.0			0.22		***
	2.0			0.14		360
	4.0			0.16		290
	6.0			0.14		310
17H 00M	0.0	0.00	3.6	0.19	100	
	1.0	0.00	3.6			
	2.0	0.00	3.6	0.20	130	
	3.0	0.00	3.6			
	4.0	0.00	3.6	0.11	130	
	5.0	0.00	3.6			
	6.0	0.00	3.6	0.09		280
	6.4	0.00	3.6			
17H 30M	0.0	0.00	3.6	0.04	010	
	1.0	0.00	3.6			
	2.0	0.00	3.6	0.09		350
	3.0	0.00	3.6			
	4.0	0.00	3.6	0.03	020	
	5.0	0.00	3.6			
	6.0	0.00	3.6	0.14		320
	6.5	0.00	3.6			
18H 00M	0.0			0.09		290
	2.0			0.00		000
	4.0			0.18	060	
	6.0			0.22	100	
	7.5			0.09	020	
18H 30M	0.0	0.20	3.6	0.14	090	
	1.0	0.20	3.6			
	2.0	0.20	3.6	0.18	060	
	3.0	0.20	3.6			
	4.0	0.20	3.6	0.14	140	
	5.0	0.20	3.6			
	6.0	0.20	3.6	0.14	030	
	7.0	0.20	3.6			
	7.5			0.09	030	
19H 00M	0.0	0.20	3.6	0.24	150	
	1.0	0.20	3.6			
	2.0	0.20	3.6	0.06	020	

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34

FEB 9-10/78 RIVER DISCHARGE AT HOPE = 820 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
19H 00M	3.0	0.20	3.6			
	4.0	0.20	3.6	0.00		000
	5.0	0.20	3.6			
	6.0	0.20	3.6	0.12	020	
	7.2	0.20	3.6			
	7.5			0.19	040	
19H 30M	0.0			0.19	130	
	2.0			0.00		000
	4.0			0.14		350
	6.0			0.06	140	
	7.0			0.09		350
20H 00M	0.0			0.06		220
	2.0			0.09	160	
	4.0			0.09	080	
	6.0			0.14		360
	7.0			0.09	020	
20H 30M	0.0			0.06		210
	2.0			0.10	010	
	4.0			0.06		340
	6.0			0.04	110	
21H 00M	0.0			0.12	110	
	2.0			0.11	080	
	4.0			0.04	120	
	6.0			0.13		200
21H 30M	0.0			0.33		***
	2.0			0.37		340
	4.0			0.25		310
	6.0			0.12		270
22H 00M	0.0			0.39		***
	2.0			0.37		280
	4.0			0.30		250
	6.0			0.24		200
04H 00M	0.0			0.34		***
	2.0			0.28		300
	4.0			0.26		280
	5.5			0.16		250
04H 30M	0.0			0.19		***
	2.0			0.16		340
	4.0			0.16		300

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34

FEB 9-10/78 RIVER DISCHARGE AT HOPE = 820 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
04H 30M	5.0			0.10		240
05H 00M	0.0			0.10	120	
	2.0			0.13	010	
	4.0			0.11		330
	5.0			0.09		320
05H 30M	0.0			0.26	120	
	2.0			0.22	030	
	4.0			0.17	020	
	6.0			0.22	030	
06H 00M	0.0			0.31	110	
	2.0			0.33	040	
	4.0			0.27	040	
	6.0			0.27	040	
	7.0			0.27	040	
06H 30M	0.0			0.30	060	
	2.0			0.43	110	
	4.0			0.30	110	
	6.0			0.33	050	
	7.0			0.33	050	
07H 00M	0.0			0.48	110	
	2.0			0.41	050	
	4.0			0.44	060	
	6.0			0.39	040	
	7.0			0.39	050	
07H 30M	0.0			0.46	060	
	2.0			0.39	050	
	4.0			0.38	060	
	6.0			0.34	050	
	7.5			0.22	040	
08H 00M	0.0			0.36	100	
	2.0			0.24	050	
	4.0			0.24	050	
	6.0			0.30	050	
	7.5			0.30	050	
08H 30M	0.0			0.39	110	
	2.0			0.33	040	
	4.0			0.37	050	
	6.0			0.31	050	
	7.5			0.33	040	

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34

FEB 9-10/78 RIVER DISCHARGE AT HOPE = 820 CU.M/SEC

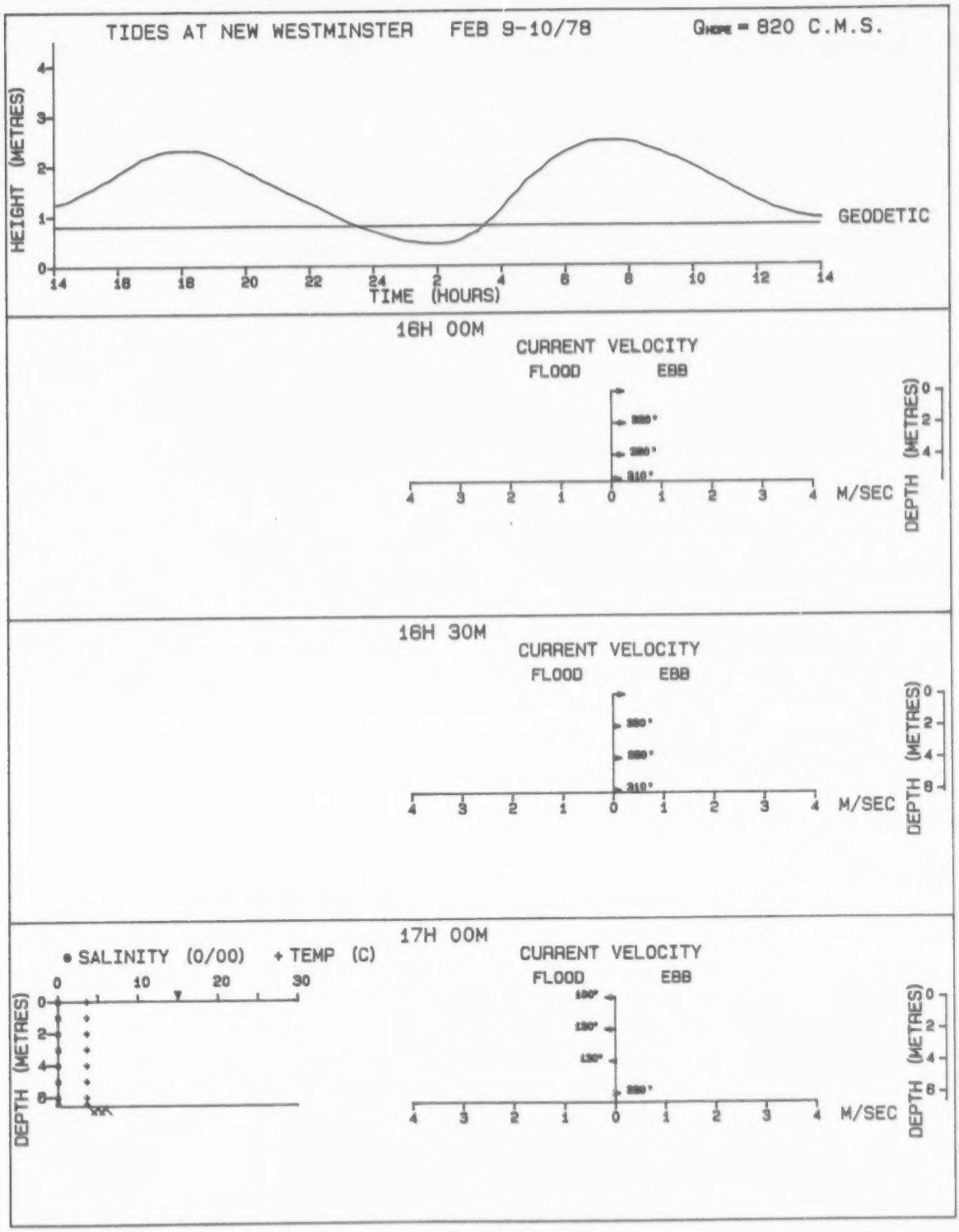
TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
09H 00M	0.0			0.37	050	
	2.0			0.40	050	
	4.0			0.37	050	
	6.0			0.27	040	
	7.5			0.16	050	
09H 20M	0.0	0.10	3.8			
	1.0	0.10	3.8			
	2.0	0.10	3.8			
	3.0	0.10	3.8			
	4.0	0.10	3.8			
	5.0	0.10	3.8			
	6.0	0.10	3.8			
	7.5	0.10	3.8			
09H 30M	0.0			0.30	060	
	2.0			0.34	050	
	4.0			0.24	060	
	6.0			0.34	060	
	7.5			0.27	040	
09H 40M	0.0	0.00	3.8			
	1.0	0.00	3.8			
	2.0	0.00	3.8			
	3.0	0.00	3.8			
	4.0	0.00	3.8			
	5.0	0.00	3.8			
	6.0	0.00	3.8			
	7.3	0.00	3.8			
10H 00M	0.0	0.20	3.8	0.18	130	
	1.0	0.20	3.8			
	2.0	0.20	3.8	0.29	060	
	3.0	0.20	3.8			
	4.0	0.20	3.8	0.25	030	
	5.0	0.20	3.8			
	6.0	0.20	3.8	0.19	030	
	7.1	0.20	3.8			
	7.5			0.20	030	
10H 30M	0.0	0.20	3.8	0.09	160	
	1.0	0.20	3.8			
	2.0	0.20	3.8	0.17	030	
	3.0	0.20	3.8			
	4.0	0.20	3.8	0.14	130	
	5.0	0.20	3.8			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34

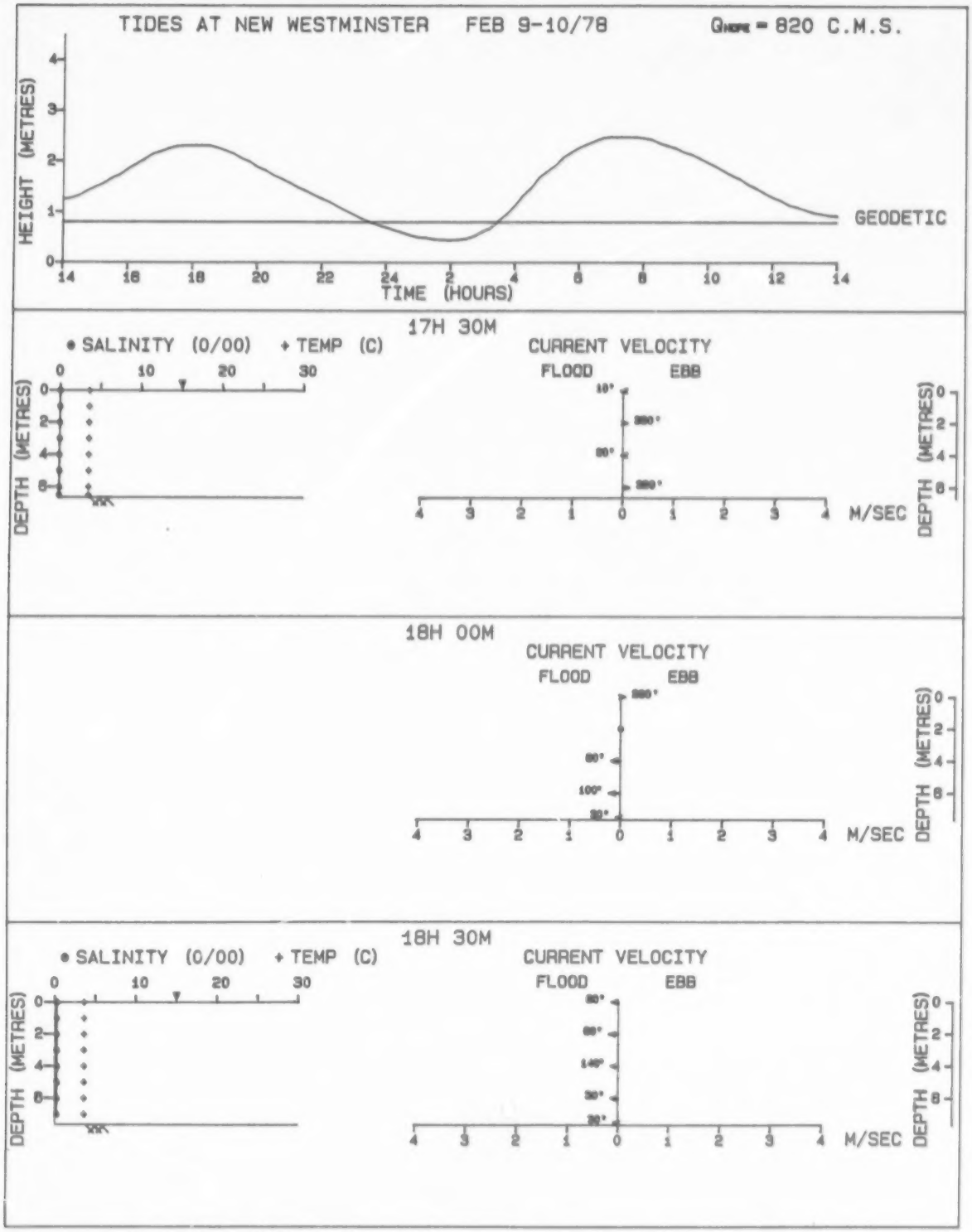
FEB 9-10/78 RIVER DISCHARGE AT HOPE = 820 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
10H 30M	6.0	0.20	3.8	0.22	030	
	7.5			0.16	080	
11H 00M	0.0	0.20	3.8	0.03	100	
	1.0	0.20	3.8			
	2.0	0.20	3.8	0.20		350
	3.0	0.20	3.8			
	4.0	0.20	3.8	0.06	120	
	5.0	0.20	3.8			
	6.0			0.25		260
	6.2	0.20	3.8			
11H 30M	0.0			0.37		***
	2.0			0.44		***
	4.0			0.37		280
	6.0			0.22		270
	6.5			0.28		260
12H 00M	0.0			0.37		***
	2.0			0.31		290
	4.0			0.28		280
	6.0			0.22		260

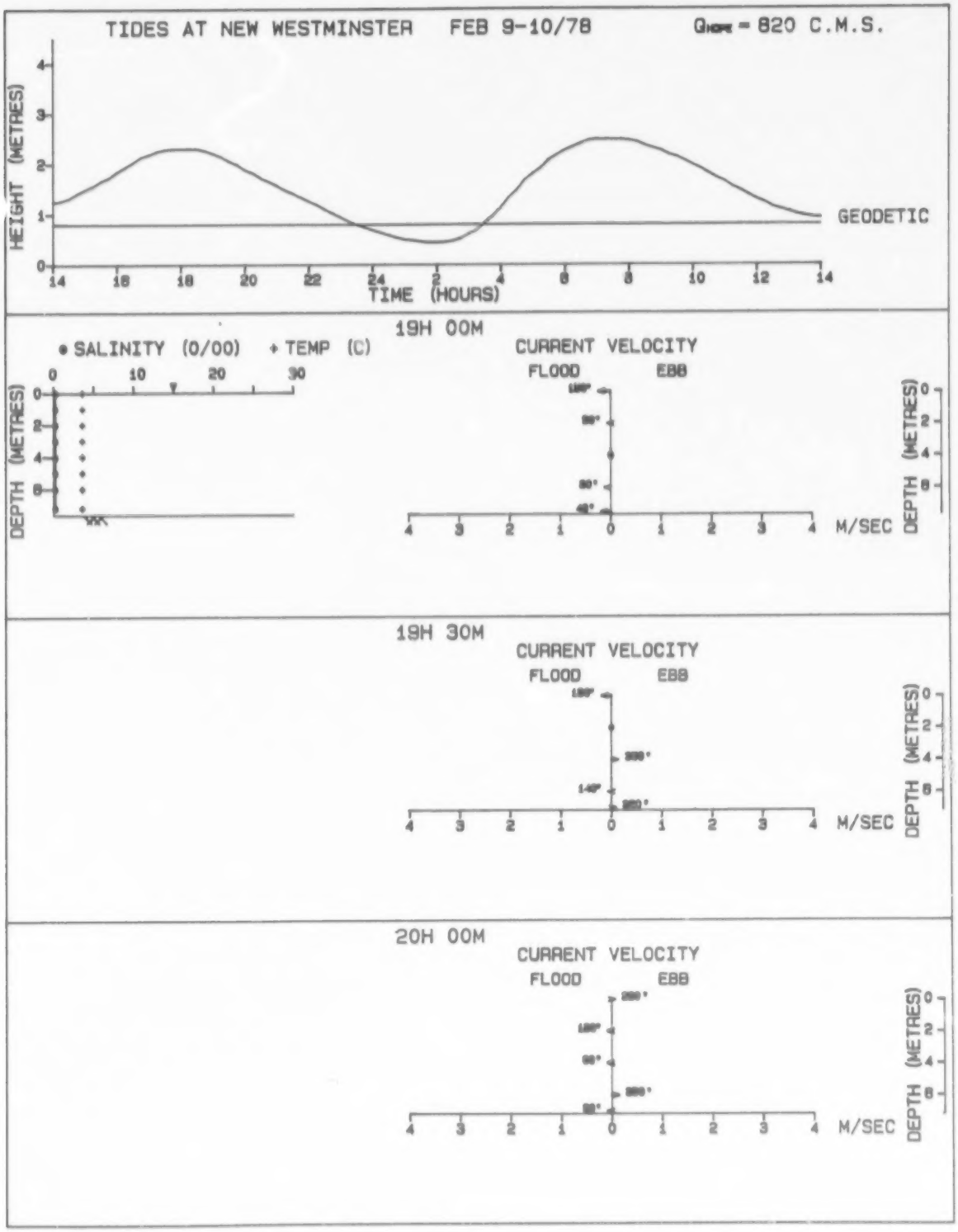
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34



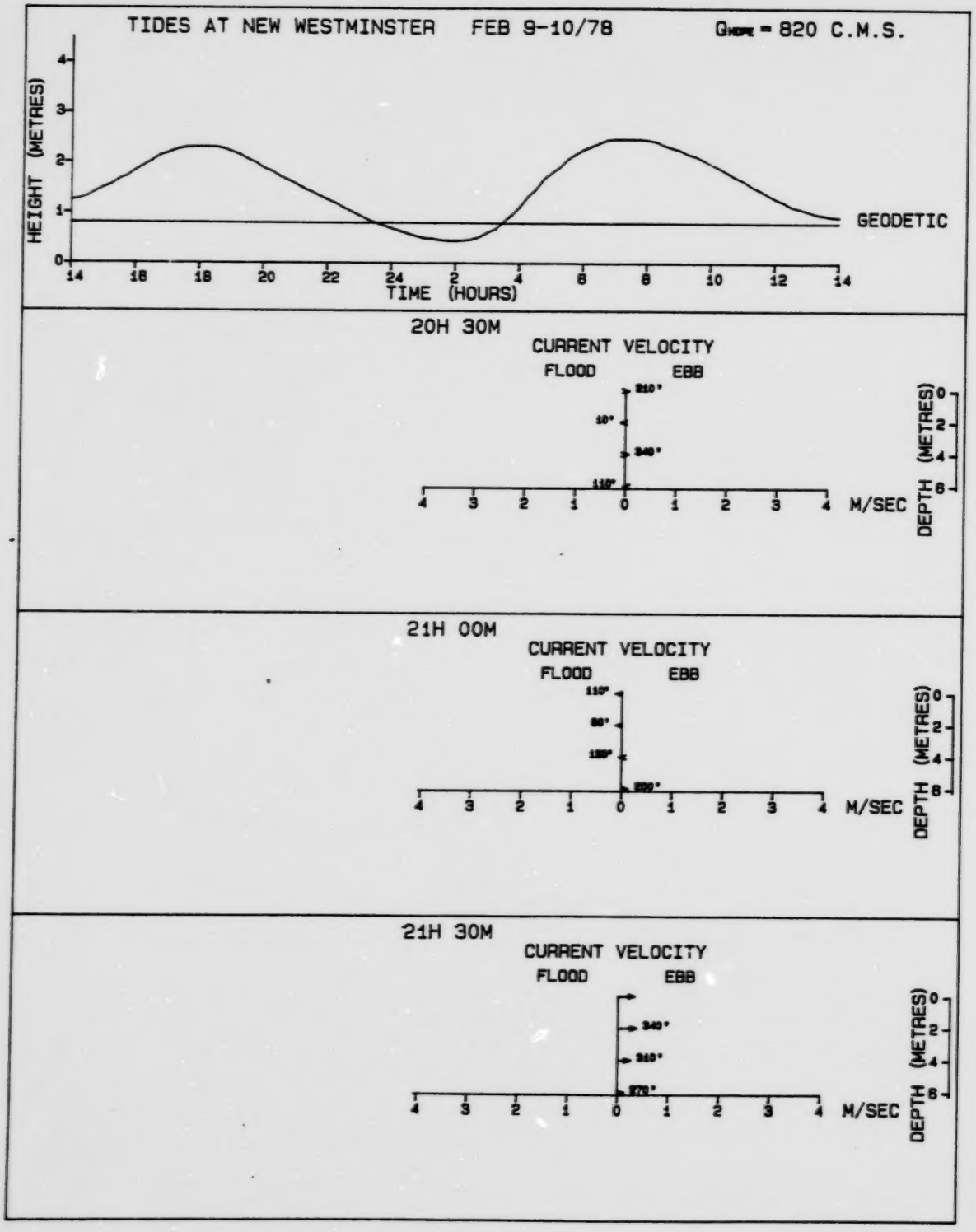
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34



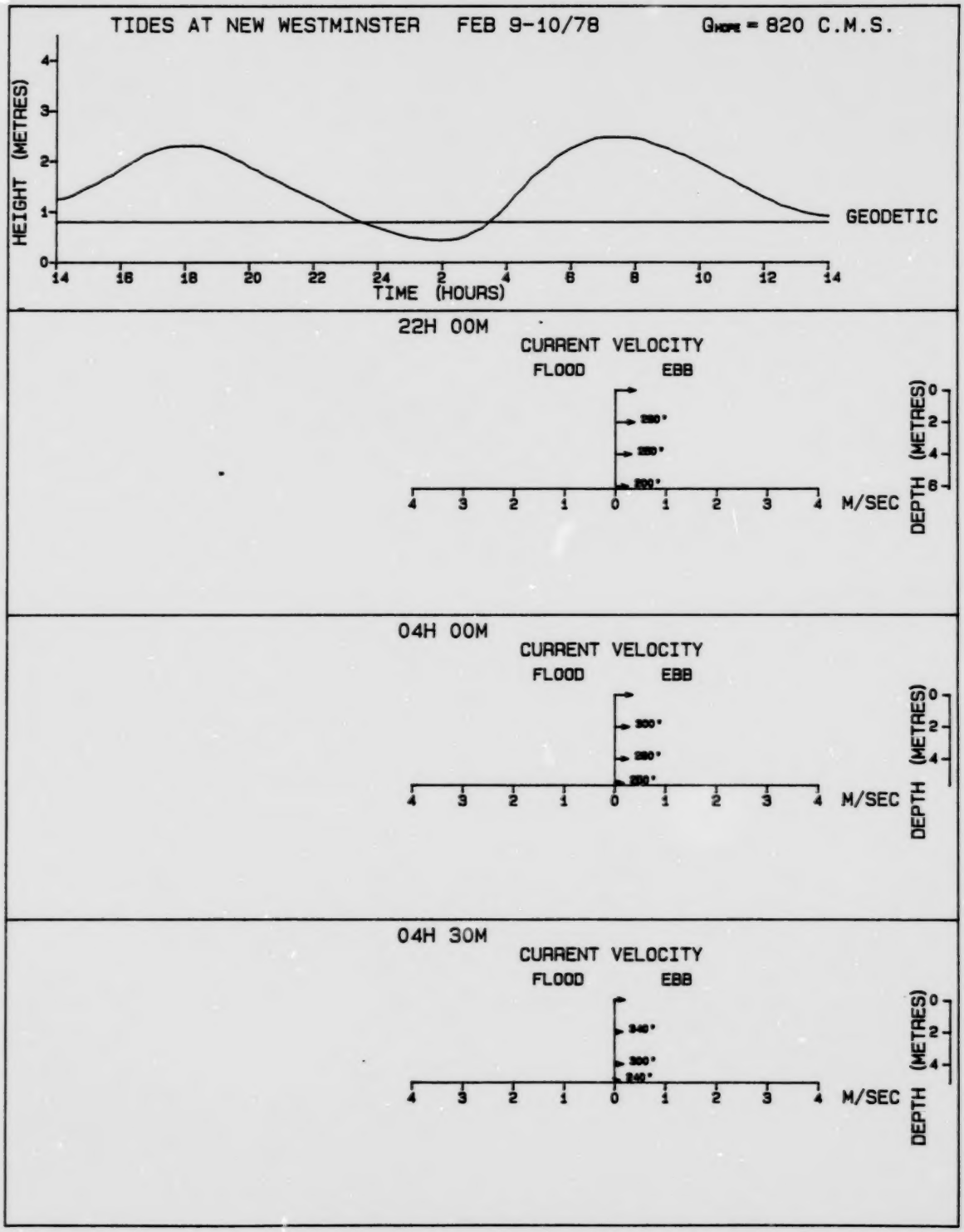
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34



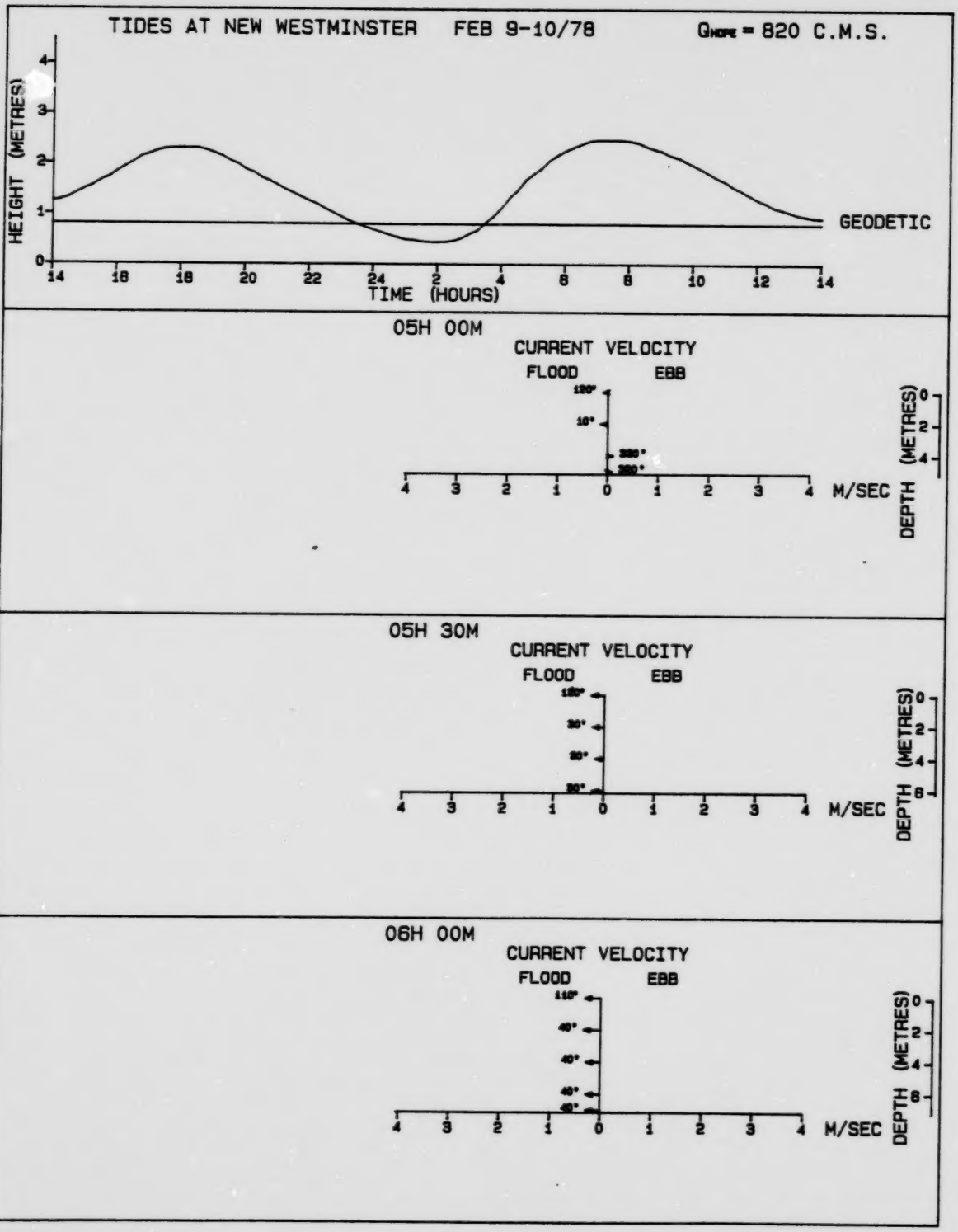
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34



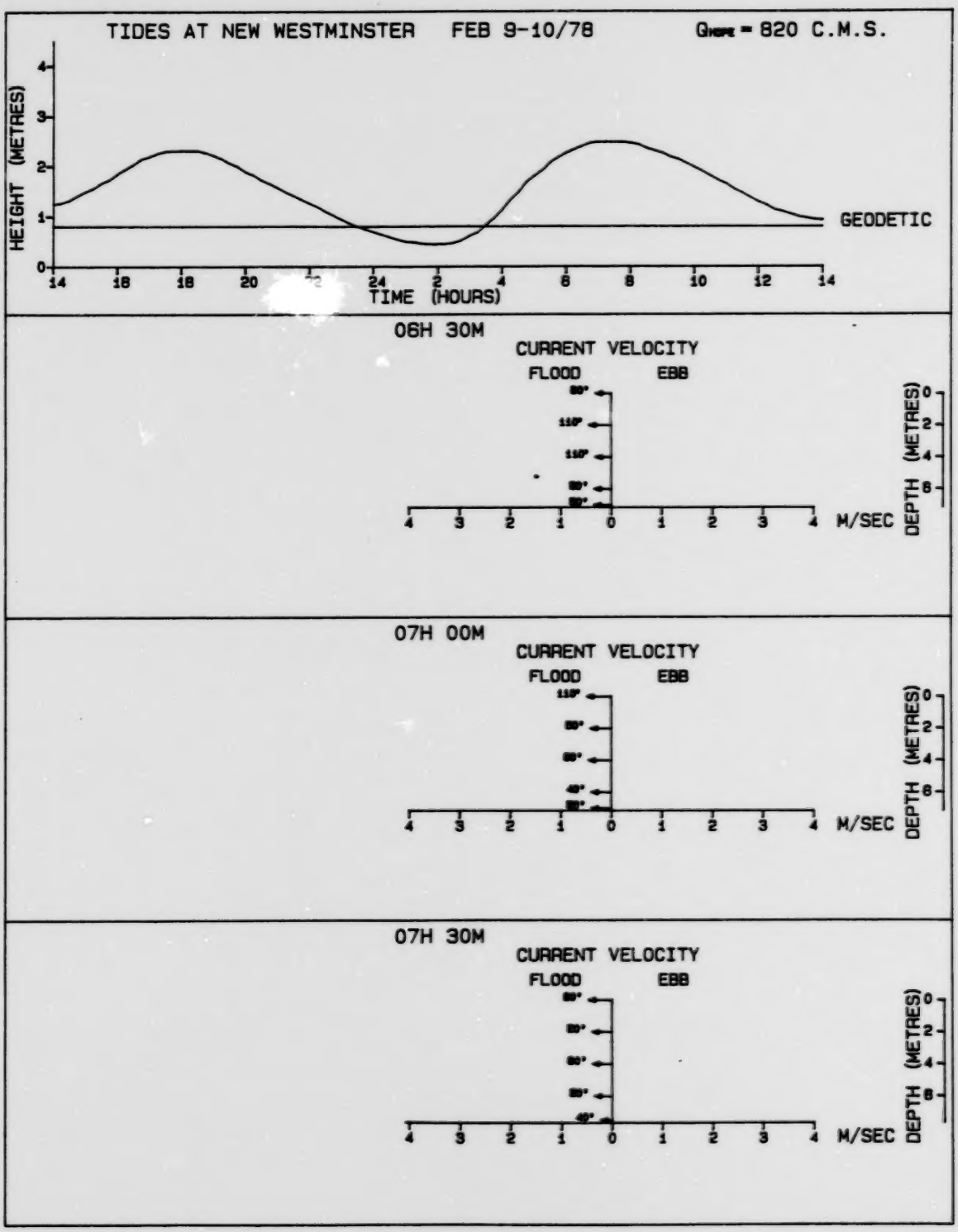
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34



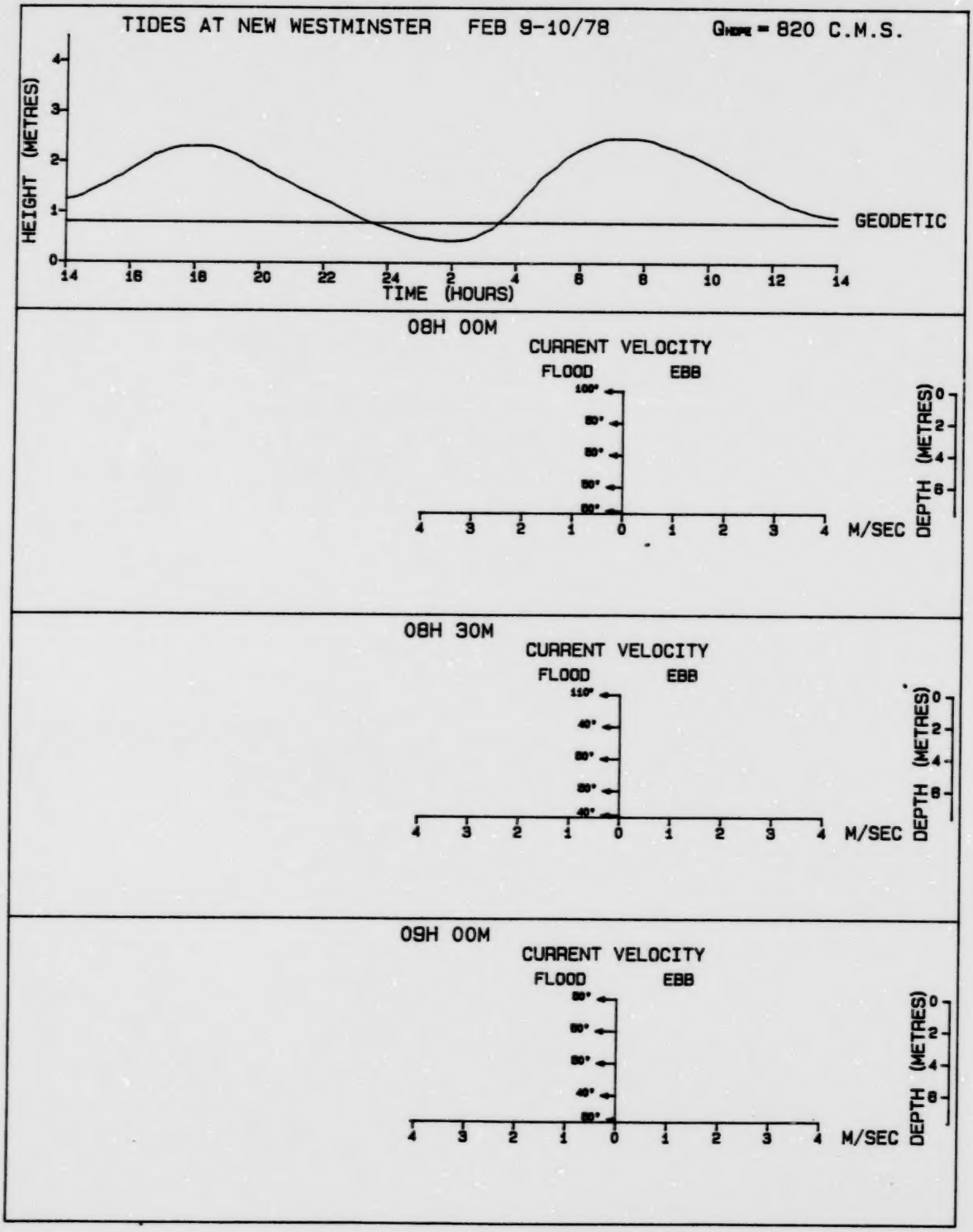
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34



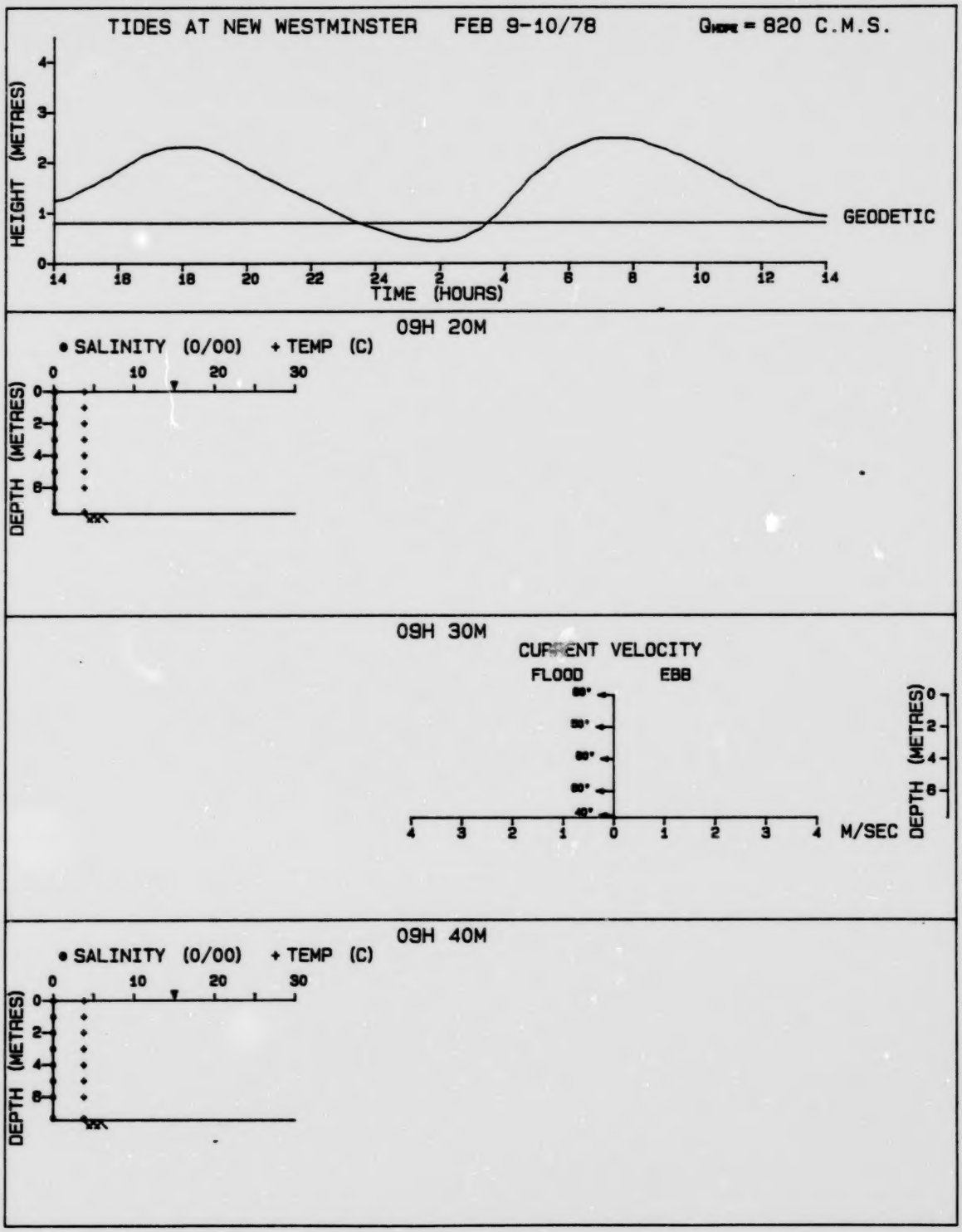
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34



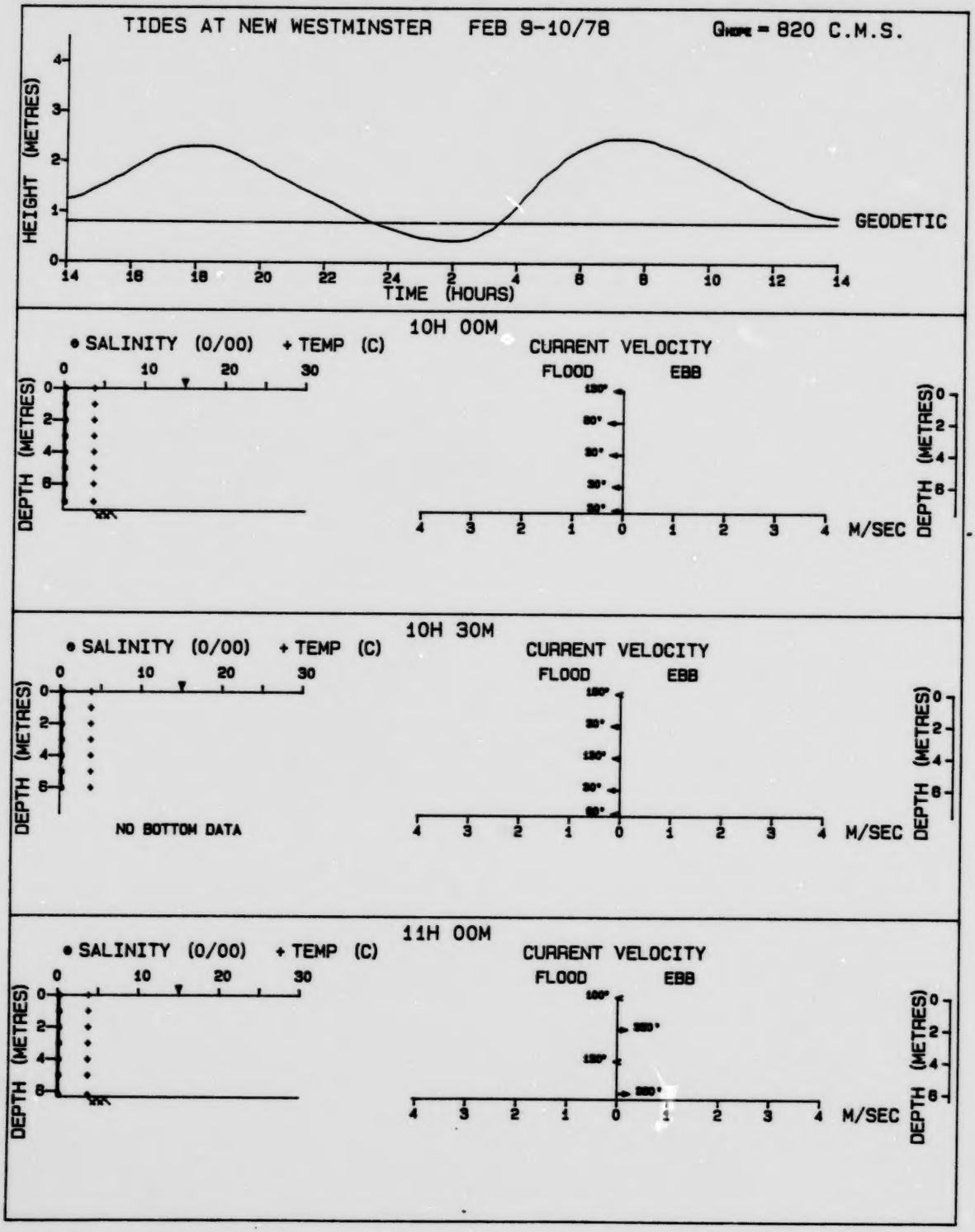
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34



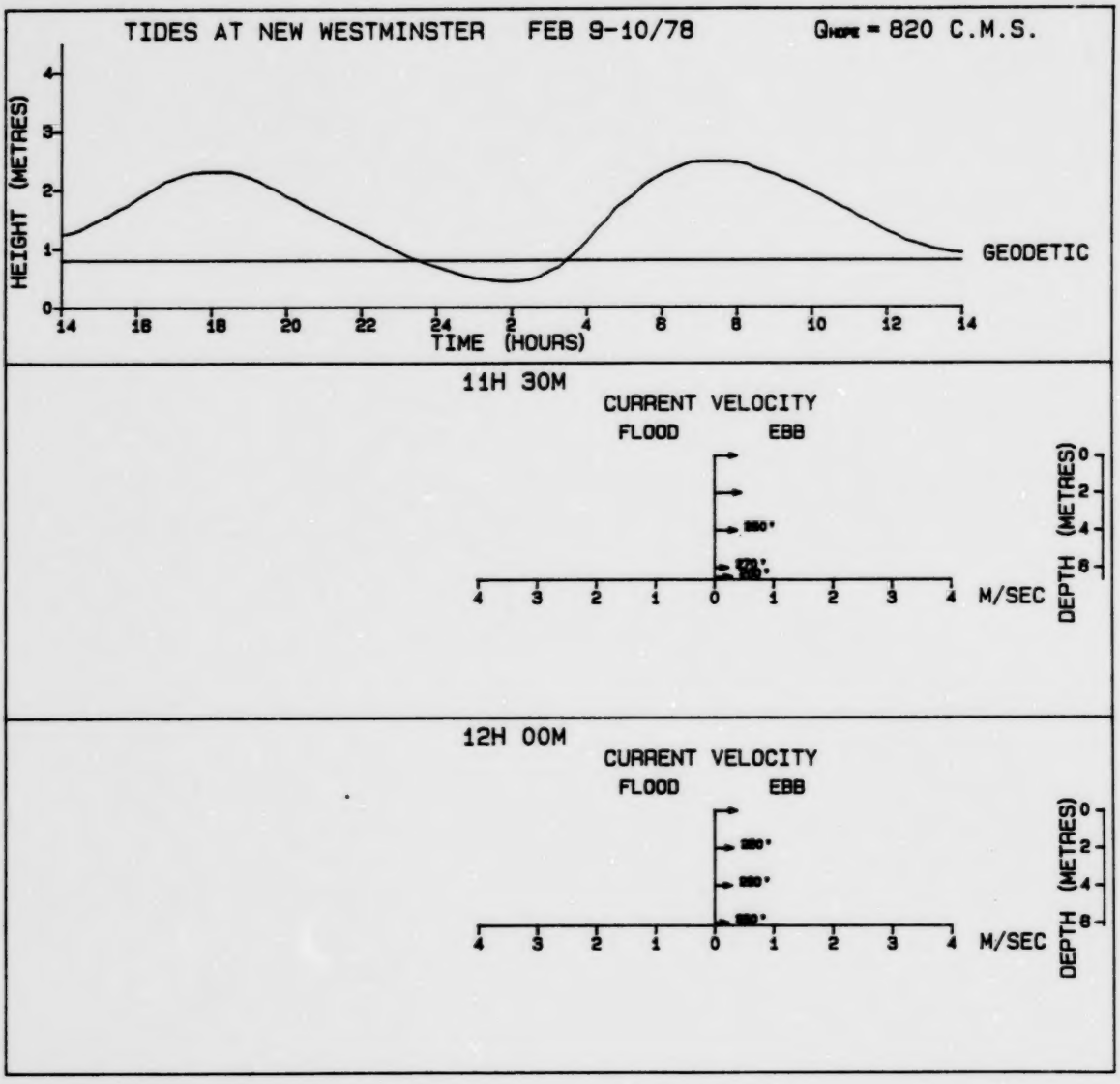
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S34



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 19-20/78 RIVER DISCHARGE AT HOPE = 1710 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
15H 00M	0.0	0.00	6.7	0.17	050	
	1.0	0.50	6.7			
	2.0	0.70	6.7			
	3.0	0.70	6.7			
	3.1			0.12	070	
	4.0	1.70	6.9			
	5.0	1.80	6.9			
	6.0	3.10	7.0			
	6.1			0.37	060	
	7.0	4.50	7.1			
	8.0	5.20	7.1			
	9.2	5.20	7.1	0.25	060	
15H 30M	0.0	0.50	7.0	0.06	040	
	1.0	0.50	6.8			
	2.0	0.60	6.8			
	3.0	1.50	6.8			
	3.1			0.14	060	
	4.0	1.90	6.8			
	5.0	3.00	6.9			
	6.0	4.50	7.0			
	6.1			0.22	080	
	7.0	6.50	7.2			
	8.0	6.50	7.2			
	9.2			0.36	060	
	9.4	6.60	7.2			
16H 00M	0.0	0.30	7.0	0.09		270
	1.0	0.50	7.0			
	2.0	1.20	7.0			
	3.0	1.90	7.0			
	3.1			0.00	000	
	4.0	2.70	7.1			
	5.0	3.70	7.1			
	6.0	5.50	7.2			
	6.1			0.12	100	
	7.0	7.70	7.2			
	8.0	8.20	7.4			
	9.0	8.20	7.4			
	9.2			0.34	120	
	9.8	8.20	7.5			
16H 30M	0.0	0.30	7.7	0.27		250
	1.0	1.00	7.6			
	2.0	1.20	7.6			
	3.0	2.30	7.5			
	3.1			0.18		240

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 19-20/78 RIVER DISCHARGE AT HOPE = 1710 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
16H 30M	4.0	2.60	7.4			
	5.0	3.60	7.3			
	6.0	6.00	7.4			
	6.1			0.00	000	
	7.0	7.60	7.6			
	8.0	7.90	7.8			
	9.0	7.90	7.8			
	9.2			0.00	000	
	9.8	8.00	7.8	0.00	000	
17H 00M	0.0	0.50		0.30		250
	1.0	0.50				
	2.0	1.00				
	3.0	1.50				
	3.1			0.30		250
	4.0	3.20				
	5.0	5.30				
	6.0	5.90				
	6.1			0.18		250
	7.0	8.50				
	8.0	8.90				
	9.0	9.20		0.19		160
	9.5	9.20		0.09		210
17H 30M	0.0	1.00	7.2	0.43		230
	1.0	1.00	7.2			
	2.0	1.10	7.2			
	3.0	1.50	7.2			
	3.1			0.55		240
	4.0	3.40	7.2			
	5.0	5.70	7.4			
	6.0	7.60	7.5			
	6.1			0.49		250
	7.0	7.70	7.6			
	8.0	9.00	7.7	0.27		260
	9.0	9.10	7.8	0.14		260
18H 00M	0.0	0.20	7.2	0.61		210
	1.0	0.50	7.1			
	2.0	0.80	7.1			
	3.0	0.80	7.1			
	3.1			0.77		230
	4.0	1.30	7.2			
	5.0	2.00	7.2			
	6.0	5.10	7.3			
	6.1			0.71		200
	7.0	7.20	7.6			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 19-20/78 RIVER DISCHARGE AT HOPE = 1710 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
18H 00M	8.0	8.50	7.6			
	9.0	9.20	7.8			
	9.2			0.66		270
	9.5	9.20	7.8			
18H 30M	0.0	0.00	7.1	0.71		240
	1.0	0.40	7.1			
	2.0	0.50	7.1			
	3.0	0.50	7.1			
	3.1			0.69		230
	4.0	0.60	7.1			
	5.0	1.00	7.2			
	6.0	1.90	7.2			
	6.1			0.62		190
	7.0	2.70	7.3			
	8.0	6.50	7.6			
	8.8	8.00	7.8	0.52		250
19H 00M	0.0	0.00	7.0	0.33		240
	1.0	0.50	7.0			
	2.0	0.50	7.0			
	3.0	0.50	7.0			
	3.1			0.71		220
	4.0	0.70	7.1			
	5.0	1.20	7.1			
	6.0	1.70	7.1			
	6.1			0.82		260
	7.0	2.40	7.1			
	8.0	4.30	7.4			
	9.0	6.60	7.6	0.43		250
19H 40M	0.0	0.00	7.0	0.78		220
	1.0	0.10	7.0			
	2.0	0.10	7.0			
	3.0	0.20	7.0			
	3.1			0.69		240
	4.0	0.30	7.0			
	5.0	0.40	7.0			
	6.0	1.00	7.1			
	6.1			0.61		250
	7.0	1.20	7.1			
	8.0	1.30	7.1			
	8.9	1.30	7.1	0.69		240
20H 00M	0.0	0.00	6.8	0.69		2[illegible]0
	1.0	0.00	6.8			
	2.0	0.00	6.8			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 19-20/78 RIVER DISCHARGE AT HOPE = 1710 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
20H 00M	3.0	0.00	6.8			
	3.1			0.44		240
	4.0	0.00	6.8			
	5.0	0.50	6.8			
	6.0	1.00	6.8			
	6.1			0.71		240
	7.0	1.00	6.8			
	8.0	1.20	6.8			
	8.7	1.30	6.8	0.69		240
20H 30M	0.0	0.00	6.8	0.70		260
	1.0	0.00	6.8			
	2.0	0.00	6.8			
	3.0	0.00	6.8			
	3.1			0.36		210
	4.0	0.00	6.8			
	5.0	0.00	6.8			
	6.0	0.00	6.8			
	6.1			0.34		240
	7.0	0.00	6.8			
	8.0	0.00	6.8			
	8.5	0.00	6.8	0.44		240
21H 00M	0.0	0.00	6.8	0.39		000
	1.0	0.00	6.8			
	2.0	0.00	6.8			
	3.0	0.00	6.8			
	3.1			0.30		230
	4.0	0.00	6.8			
	5.0	0.00	6.8			
	6.0	0.00	6.8			
	6.1			0.52		240
	7.0	0.00	6.8			
	8.3	0.00	6.8			
	9.2			0.39		210
21H 30M	0.0			0.27		***
	3.1			0.25		200
	6.1			0.48		230
	9.2			0.22		220
22H 00M	0.0			0.31		170
	3.1			0.48		220
	6.1			0.30		230
	9.2			0.27		210
22H 30M	0.0			0.24		240

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 19-20/78 RIVER DISCHARGE AT HOPE = 1710 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
22H 30M	3.1			0.25		230
	6.1			0.33		230
	9.2			0.09		220
23H 00M	0.0			0.12		240
	3.1			0.27		220
	6.1			0.22		210
	9.2			0.14		240
23H 30M	0.0			0.06		200
	3.1			0.06		290
	6.1			0.14	030	
	9.2			0.06	070	
00H 00M	0.0			0.12	340	
	3.1			0.06	340	
	6.1			0.09	040	
	9.2			0.06	010	
	10.0			0.06	010	
00H 30M	0.0			0.19	050	
	3.1			0.18	060	
	6.1			0.14	100	
	9.2			0.22	050	
	10.0			0.34	070	
01H 00M	0.0	0.00		0.19	050	
	1.0	0.00				
	2.0	0.00				
	3.0	0.00				
	3.1			0.25	060	
	4.0	0.00				
	5.0	0.00				
	6.0	0.00				
	6.1			0.22	060	
	7.0	0.00				
	8.0	0.00		0.44	150	
	9.0	0.00		0.27	110	
01H 30M	0.0			0.41	050	
	3.1			0.52	060	
	6.1			0.48	060	
	8.0			0.24	110	
	9.0			0.12	020	
02H 00M	0.0	1.20	6.9	0.27	050	
	1.0	1.50	6.9			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 19-20/78 RIVER DISCHARGE AT HOPE = 1710 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
02H 00M	2.0	1.60	6.9			
	3.0	1.60	6.9			
	3.1			0.25	030	
	4.0	2.00	7.0			
	5.0	2.50	7.0			
	6.0	3.40	7.1			
	6.1			0.34	070	
	7.0	3.40	7.1			
	8.0	3.50	7.1			
	9.0	3.60	7.1	0.14	050	
	9.5	3.60	7.1	0.27	060	
02H 30M	0.0	2.00	7.0	0.14	040	
	1.0	2.00	7.0			
	2.0	2.10	7.0			
	3.0	2.30	7.0			
	3.1			0.48	060	
	4.0	2.60	7.0			
	5.0	2.60	7.1			
	6.0	3.40	7.2			
	6.1			0.39	060	
	7.0	4.20	7.2			
	8.0	4.50	7.2			
	9.0	4.50	7.2			
	9.2			0.41	090	
	9.8	4.50	7.2	0.25	040	
03H 00M	0.0	2.70	7.0	0.49	070	
	1.0	2.80	7.0			
	2.0	3.00	7.1			
	3.0	3.20	7.1			
	3.1			0.44	050	
	4.0	3.30	7.1			
	5.0	3.50	7.1			
	6.0	3.80	7.1			
	6.1			0.33	040	
	7.0	4.00				
	8.0	5.90				
	9.0	6.60				
	9.2			0.36	050	
	10.3	6.60		0.27	050	
03H 30M	0.0	2.20	7.0	0.44	040	
	1.0	2.90	7.1			
	2.0	3.30	7.1			
	3.0	3.30	7.1			
	3.1			0.48	050	

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 19-20/78 RIVER DISCHARGE AT HOPE = 1710 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
03H 30M	4.0	3.30	7.1			
	5.0	3.90	7.2			
	6.0	4.20	7.2			
	6.1			0.39	050	
	7.0	4.70	7.2			
	8.0	7.50				
	9.0	9.20		0.39	060	
	9.5	9.20		0.30	080	
04H 10M	0.0	2.40	7.2	0.37	030	
	1.0	3.30	7.2			
	2.0	3.70	7.2			
	3.0	3.90	7.2			
	3.1			0.30	040	
	4.0	4.30	7.3			
	5.0	4.70	7.3			
	6.0	5.30	7.3			
	6.1			0.34	030	
	7.0	6.60	7.4			
	8.0	9.10	7.6			
	9.0	9.70	7.7			
	9.2			0.26	020	
	10.0	9.80	7.7	0.41	080	
04H 30M	0.0	3.10	7.2	0.22	050	
	1.0	3.30	7.2			
	2.0	3.40	7.2			
	3.0	3.60	7.2			
	3.1			0.22	050	
	4.0	3.90	7.3			
	5.0	4.30	7.3			
	6.0	6.40	7.4			
	6.1			0.22	030	
	7.0	9.70	7.7			
	8.0	10.10	7.8			
	9.0	10.20	7.8			
	9.2			0.17	060	
	10.0	10.40	7.8	0.27	050	
05H 05M	0.0	1.20	7.2	0.19		160
	1.0	3.60	7.2			
	2.0	4.00	7.3			
	3.0	4.50	7.3			
	3.1			0.17		190
	4.0	4.70	7.3			
	5.0	6.40	7.4			
	6.0	8.20	7.5			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 19-20/78 RIVER DISCHARGE AT HOPE = 1710 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
05H 05M	6.1			0.22		190
	7.0	10.80	7.7			
	8.0	11.30	7.9			
	9.0	11.80	7.9			
	9.2			0.06	140	
	9.7	12.00	8.0	0.17		190
05H 30M	0.0	2.50	7.1	0.55		220
	1.0	2.80	7.1			
	2.0	3.70	7.2			
	3.0	4.30	7.3			
	3.1			0.44		210
	4.0	6.00	7.4			
	5.0	7.50	7.5			
	6.0	8.40	7.6			
	6.1			0.39		200
	7.0	9.50	7.7			
	8.0	11.50	7.9			
	9.0	12.00	8.0			
	9.2			0.39		200
	9.7	12.30	8.0	0.34		200
06H 00M	0.0	1.50	7.0	0.74		200
	1.0	2.50	7.0			
	2.0	3.10	7.1			
	3.0	3.60	7.2			
	3.1			0.86		240
	4.0	4.80	7.2			
	5.0	7.90	7.3			
	6.0	10.60	7.6			
	6.1			0.52		240
	7.0	11.70	7.8			
	8.0	13.00	7.8			
	9.0	14.70	7.9	0.44		210
	9.5	15.20	7.9	0.44		220
06H 30M	0.0	1.80	7.0	0.61		220
	1.0	2.30	7.0			
	2.0	2.40	7.1			
	3.0	2.40	7.1			
	3.1			0.52		240
	4.0	2.90	7.1			
	5.0	4.70	7.2			
	6.0	5.60	7.3			
	6.1			0.55		210
	7.0	11.00	7.6			
	8.0	11.90	7.6			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 19-20/78 RIVER DISCHARGE AT HOPE = 1710 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
06H 30M	8.8			0.50		190
	9.3	13.70	7.8	0.61		220
07H 00M	0.0			0.88		210
	3.1			0.61		220
	6.1			0.34		240
	9.2			0.44		230
	10.0			0.61		230
07H 30M	0.0	1.40	7.3	1.03		230
	1.0	1.50	7.3			
	2.0	1.50	7.3			
	3.0	1.70	7.3			
	3.1			0.82		220
	4.0	1.90	7.3			
	5.0	2.20	7.4			
	6.0	3.20	7.4			
	6.1			0.69		240
	7.0	3.50	7.5			
	8.0	3.50	7.5			
	8.5			0.27		230
	9.0	3.60	7.5	0.24		200
08H 00M	0.0	0.70	7.2	0.95		220
	1.0	0.70	7.2			
	2.0	0.80	7.2			
	3.0	1.00	7.2			
	3.1			0.69		230
	4.0	1.10	7.2			
	5.0	1.10	7.2			
	6.0	1.40	7.3			
	6.1			0.61		230
	7.0	1.90	7.3			
	8.0	2.00	7.3			
	8.6	2.40	7.3	0.52		230
08H 30M	0.0	0.40	7.2	0.86		240
	1.0	0.40	7.2			
	2.0	0.40	7.2			
	3.0	0.40	7.2			
	3.1			0.69		240
	4.0	0.40	7.2			
	5.0	0.40	7.2			
	6.0	0.50	7.2			
	6.1			0.43		240
	7.0	0.50	7.2			
	8.0	0.50	7.2	0.71		220

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 19-20/78 RIVER DISCHARGE AT HOPE = 1710 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
09H 00M	0.0	0.10	7.1	0.58		250
	1.0	0.10	7.1			
	2.0	0.10	7.1			
	3.0	0.10	7.1			
	3.1			0.44		250
	4.0	0.10	7.1			
	5.0	0.10	7.1			
	6.0	0.10	7.1			
	6.1			0.17		240
	7.0	0.10	7.1			
	8.3	0.10	7.1	0.26		240
09H 30M	0.0	0.00	7.1	0.36		***
	1.0	0.00	7.1			
	2.0	0.00	7.1			
	3.0	0.00	7.1			
	3.1			0.17		230
	4.0	0.00	7.1			
	5.0	0.00	7.1			
	6.0	0.00	7.1			
	6.1			0.50		180
	7.0	0.00	7.1			
	8.0	0.00	7.1	0.34		240
10H 00M	0.0			0.26		230
	3.1			0.52		260
	6.1			0.34		240
	9.2			0.00	000	
10H 30M	0.0			0.17	130	
	3.1			0.25	090	
	6.1			0.17		240
	9.2			0.44	050	
	10.0			0.44	050	
11H 00M	0.0			0.27		260
	3.1			0.27		300
	6.1			0.37		260
	9.2			0.34	060	
11H 30M	0.0			0.17	040	
	3.1			0.14		310
	6.1			0.24	340	
	9.2			0.12	340	
12H 00M	0.0			0.31		320

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 19-20/78 RIVER DISCHARGE AT HOPE = 1710 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
12H 00M	3.1			0.18		330
	6.1			0.30		330
	9.2			0.24		330
12H 40M	0.0			0.30	040	
	3.1			0.14	010	
	6.1			0.25	020	
	9.2			0.36	040	
13H 00M	0.0			0.25	080	
	3.1			0.30	080	
	6.1			0.27	050	
	9.2			0.48	050	
13H 30M	0.0			0.22	030	
	3.1			0.27	080	
	6.1			0.24	130	
	9.2			0.24	140	
14H 00M	0.0			0.33	040	
	3.1			0.27	090	
	6.1			0.43	120	
	9.2			0.27	140	
14H 30M	0.0	0.00	7.3	0.71	050	
	1.0	0.00	7.3			
	2.0	0.00	7.3			
	3.0	0.10	7.2			
	3.1			0.17	070	
	4.0	0.20	7.2			
	5.0	0.20	7.1			
	6.0	0.20	7.1			
	6.1			0.22		240
	7.0	0.20	7.1			
	8.0	0.30	7.1			
	9.0	0.30	7.1	0.48		240
	9.5	0.30	7.1	0.22		260

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 20-21/78 RIVER DISCHARGE AT HOPE = 1760 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
15H 00M	0.0	0.00	7.2	0.44	080	
	1.0	0.00	7.2			
	2.0	0.10	7.2			
	3.0	0.10	7.2			
	3.1			0.14		240
	4.0	0.20	7.2			
	5.0	0.20	7.2			
	6.0	0.20	7.2			
	6.1			0.14		260
	7.0	0.30	7.2			
	8.0	0.30	7.2			
	9.0	0.30	7.2			
	9.2			0.26		250
	10.0	0.30	7.2	0.77	150	
15H 30M	0.0	0.50	7.2	0.33	070	
	1.0	0.50	7.2			
	2.0	0.50	7.2			
	3.0	0.50	7.2			
	3.1			0.19	090	
	4.0	0.50	7.2			
	5.0	0.50	7.2			
	6.0	0.50	7.2			
	6.1			0.14	100	
	7.0	0.50	7.2			
	8.0	0.50	7.2			
	9.0	0.50	7.2			
	9.2			0.09	050	
	10.0	0.50	7.2	0.27	090	
16H 00M	0.0	0.50	7.4	0.27	050	
	1.0	0.70	7.4			
	2.0	1.00	7.3			
	3.0	1.00	7.3			
	3.1			0.41	040	
	4.0	1.00	7.3			
	5.0	1.10	7.3			
	6.0	1.10	7.3			
	6.1			0.39	030	
	7.0	1.30	7.3			
	8.0	2.00	7.3			
	9.0	2.30	7.3			
	9.2			0.43	040	
	10.0	2.70	7.3	0.27	090	
16H 30M	0.0	0.60	7.4	0.14	050	
	1.0	0.70	7.4			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 20-21/78 RIVER DISCHARGE AT HOPE = 1760 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
16H 30M	2.0	0.90	7.3			
	3.0	1.00	7.3			
	3.1			0.41	050	
	4.0	1.00	7.3			
	5.0	1.20	7.3			
	6.0	1.30	7.3			
	6.1			0.41	050	
	7.0	1.40	7.3			
	8.0	2.80	7.3			
	9.0	3.20	7.3			
	9.2			0.27	010	
	10.0	3.20	7.3	0.41	070	
17H 00M	0.0	0.60	7.4	0.06		250
	1.0	1.00	7.4			
	2.0	1.00	7.4			
	3.0	1.00	7.4			
	3.1			0.14	010	
	4.0	1.50	7.4			
	5.0	1.80	7.4			
	6.0	2.70	7.4			
	6.1			0.14	020	
	7.0	4.50	7.4			
	8.0	5.00	7.4			
	9.0	5.00	7.4	0.12	000	
	9.5	5.00	7.4	0.06	050	
17H 30M	0.0	0.60	7.3	0.14		300
	1.0	0.60	7.3			
	2.0	0.70	7.3			
	3.0	0.80	7.3			
	3.1			0.14		260
	4.0	0.80	7.3			
	5.0	1.60	7.3			
	6.0	2.20	7.4			
	6.1			0.17		240
	7.0	4.20	7.4			
	8.0	6.00	7.5			
	9.0	6.20	7.5	0.27		200
	9.5	6.20	7.5	0.17		240
18H 00M	0.0	0.50	7.3	0.34		280
	1.0	0.50	7.3			
	2.0	0.50	7.3			
	3.0	0.60	7.3			
	3.1			0.24		260
	4.0	1.00	7.3			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 20-21/78 RIVER DISCHARGE AT HOPE - 1760 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
18H 00M	5.0	1.80	7.3			
	6.0	2.80	7.3			
	6.1			0.52		220
	7.0	4.80	7.4			
	8.0	6.00	7.5			
	8.9			0.39		200
	9.4	6.90	7.6	0.30		220
18H 30M	0.0	0.50	7.2	0.37		240
	1.0	0.50	7.2			
	2.0	0.50	7.2			
	3.0	0.50	7.2			
	3.1			0.46		240
	4.0	0.60	7.2			
	5.0	1.30	7.2			
	6.0	2.40	7.3			
	6.1			0.50		260
	7.0	4.20	7.4			
	8.0	6.10	7.5			
	8.8			0.22		220
	9.3	6.30	7.6	0.12		190
19H 00M	0.0	0.20	7.2	0.52		220
	1.0	0.30	7.2			
	2.0	0.30	7.2			
	3.0	0.30	7.2			
	3.1			0.52		220
	4.0	0.50	7.2			
	5.0	0.50	7.2			
	6.0	1.00	7.2			
	6.1			0.55		250
	7.0	1.40	7.2			
	8.0	3.50	7.2			
	8.5			0.27		250
	9.0	5.00	7.3	0.17		230
19H 30M	0.0	0.10	7.2	0.52		240
	1.0	0.10	7.2			
	2.0	0.20	7.2			
	3.0	0.20	7.2			
	3.1			0.39		260
	4.0	0.20	7.2			
	5.0	0.30	7.2			
	6.0	0.40	7.2			
	6.1			0.69		240
	7.0	1.40	7.2			
	8.0	2.10	7.3	0.17		240

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 20-21/78 RIVER DISCHARGE AT HOPE - 1760 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
19H 30M	8.8	2.20	7.3	0.17		240
20H 00M	0.0	0.10	7.2	0.52		230
	1.0	0.10	7.2			
	2.0	0.10	7.2			
	3.0	0.10	7.2			
	3.1			0.52		240
	4.0	0.20	7.2			
	5.0	0.30	7.2			
	6.0	0.30	7.2			
	6.1			0.71		250
	7.0	1.00	7.2			
	8.0	1.10	7.2			
	8.5	1.10	7.2	0.61		200
20H 30M	0.0	0.10	7.2	0.62		260
	1.0	0.10	7.2			
	2.0	0.10	7.2			
	3.0	0.10	7.2			
	3.1			0.24		270
	4.0	0.10	7.2			
	5.0	0.10	7.2			
	6.0	0.10	7.2			
	7.0	0.10	7.2			
	8.2	0.10	7.2			
21H 00M	0.0			0.85		270
	3.1			0.52		230
	6.1			0.86		320
	9.2			0.86		330
21H 30M	0.0			0.82		170
	3.1			0.61		240
	6.1			0.44		240
	9.2			0.24		290
22H 00M	0.0			0.43		220
	3.1			0.30		260
	6.1			0.43		230
	9.2			0.48		260
22H 30M	0.0			0.58		210
	3.1			0.39		190
	6.1			0.36		190
	9.2			0.52		230
	10.0			0.31		250

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 20-21/78 RIVER DISCHARGE AT HOPE - 1760 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
23H 00M	0.0			0.22		230
	3.1			0.18		220
	6.1			0.18		220
	9.2			0.09		240
	10.0			0.11		210
23H 30M	0.0			0.11		250
	3.1			0.11		230
	6.1			0.09		240
	9.2			0.04		250
	10.0			0.04		240
00H 00M	0.0			0.03		310
	3.1			0.04		280
	6.1			0.00	000	
	9.2			0.04	020	
	10.0			0.03		330
00H 30M	0.0	0.00	7.2	0.00	000	
	1.0	0.00	7.2			
	2.0	0.00	7.2			
	3.0	0.00	7.2			
	3.1			0.09	340	
	4.0	0.00	7.2			
	5.0	0.00	7.2			
	6.0	0.00	7.2			
	6.1			0.06	070	
	7.0	0.00	7.2			
	8.0	0.00	7.2	0.14	010	
	8.7	0.00	7.2	0.15	020	
01H 00M	0.0	0.00	7.2	0.26	040	
	1.0	0.00	7.2			
	2.0	0.00	7.2	0.20	060	
	3.0	0.00	7.2			
	4.0	0.00	7.2	0.15	080	
	5.0	0.00	7.2			
	6.0	0.00	7.2	0.29	080	
	7.0	0.00	7.2			
	8.0	0.00	7.2	0.36	090	
01H 30M	0.0	0.00	7.2	0.27	050	
	1.0	0.00	7.2			
	2.0	0.00	7.2			
	3.0	0.00	7.2			
	3.1			0.27	060	
	4.0	0.00	7.2			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 20-21/78 RIVER DISCHARGE AT HOPE - 1760 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
01H 30M	5.0	0.00	7.2			
	6.0	0.00	7.2			
	6.1			0.29	050	
	7.0	0.00	7.2			
	8.0	0.00	7.2			
	8.5			0.48	040	
	9.0	0.00	7.2	0.43	070	
02H 00M	0.0	0.10	7.2	0.50	050	
	1.0	0.10	7.2			
	2.0	0.10	7.2			
	3.0	0.10	7.2			
	3.1			0.41	050	
	4.0	0.10	7.2			
	5.0	0.10	7.2			
	6.0	0.10	7.2			
	6.1			0.60	070	
	7.0	0.10	7.2			
	8.0	0.10	7.2			
	9.0	0.10	7.2	0.52	070	
02H 30M	0.0	0.50	7.2	0.36	020	
	1.0	0.50	7.2			
	2.0	0.50	7.2			
	3.0	0.50	7.2			
	3.1			0.34	050	
	4.0	0.60	7.2			
	5.0	0.70	7.3			
	6.0	0.80	7.3			
	6.1			0.41	060	
	7.0	0.90	7.3			
	8.0	1.00	7.3			
	9.0	1.10	7.3	0.36	070	
	9.6	1.10	7.3	0.34	090	
03H 00M	0.0	0.70	7.2	0.66	060	
	1.0	0.80	7.2			
	2.0	0.90	7.2			
	3.0	1.10	7.2			
	3.1			0.73	070	
	4.0	1.20	7.3			
	5.0	1.30	7.3			
	6.0	1.60	7.3			
	6.1			0.40	050	
	7.0	1.70	7.3			
	8.0	2.50	7.4			
	9.0	2.60	7.4			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 20-21/78 RIVER DISCHARGE AT HOPE = 1760 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
03H 00M	9.2			0.36	050	
	9.7	2.60	7.4	0.25	040	
03H 35M	0.0	0.60	7.2	0.33	040	
	1.0	1.50	7.2			
	2.0	1.70	7.2			
	3.0	1.90	7.2			
	3.1			0.25	040	
	4.0	2.10	7.3			
	5.0	2.20	7.3			
	6.0	2.50	7.3			
	6.1			0.27	050	
	7.0	3.00	7.4			
	8.0	4.50	7.4			
	9.0	5.60	7.6			
	9.2			0.18	050	
	9.8	5.80	7.6	0.16	040	
04H 00M	0.0	1.30	7.2	0.22	070	
	1.0	1.70	7.2			
	2.0	2.00	7.3			
	3.0	2.20	7.3			
	3.1			0.28	060	
	4.0	3.10	7.3			
	5.0	3.50	7.4			
	6.0	4.00	7.4			
	6.1			0.18	040	
	7.0	6.50	7.6			
	8.0	7.40	7.7			
	9.0	7.40	7.7			
	9.2			0.10	340	
	10.0	7.40	7.7	0.30	080	
04H 30M	0.0	1.60	7.1	0.15	050	
	1.0	2.00	7.2			
	2.0	2.30	7.3			
	3.0	2.40	7.3			
	3.1			0.29	060	
	4.0	2.70	7.3			
	5.0	3.50	7.3			
	6.0	5.20	7.4			
	6.1			0.15	020	
	7.0	8.00	7.6			
	8.0	8.40	7.8			
	9.0	8.90	7.8			
	9.2			0.10	000	
	9.8	8.90	7.8	0.09		330

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 20-21/78 RIVER DISCHARGE AT HOPE - 1760 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
05H 00M	0.0	1.50	7.1	0.04		260
	1.0	1.50	7.2			
	2.0	1.50	7.2			
	3.0	1.60	7.2			
	3.1			0.06	030	
	4.0	3.00	7.3			
	5.0	6.00	7.5			
	6.0	7.50	7.7			
	6.1			0.09	070	
	7.0	10.00	7.9			
	8.0	10.00	7.9			
	9.0	10.00	7.9			
	9.2			0.06	080	
	10.0	10.00	7.9	0.07	040	
05H 30M	0.0	1.30	7.0	0.17		240
	1.0	1.30	7.2			
	2.0	1.30	7.2			
	3.0	3.00	7.4			
	3.1			0.09		250
	4.0	4.80	7.5			
	5.0	6.60	7.6			
	6.0	8.50	7.7			
	6.1			0.06		280
	7.0	9.20	7.8			
	8.0	10.50	8.0			
	9.0	11.20	8.0			
	9.2			0.06	010	
	10.0	11.20	8.0			
06H 00M	0.0	0.90	7.1	0.46		240
	1.0	1.80	7.2			
	2.0	2.60	7.2			
	3.0	3.80	7.3			
	3.1			0.39		230
	4.0	4.40	7.4			
	5.0	6.60	7.5			
	6.0	8.50	7.7			
	6.1			0.19		210
	7.0	10.20	7.8			
	8.0	10.80	7.9			
	9.0	11.40	8.0			
	9.2			0.24		260
	9.5	11.40	8.0			
06H 30M	0.0	0.80	7.2			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

APR 20-21/78 RIVER DISCHARGE AT HOPE - 1760 CU.M/SEC

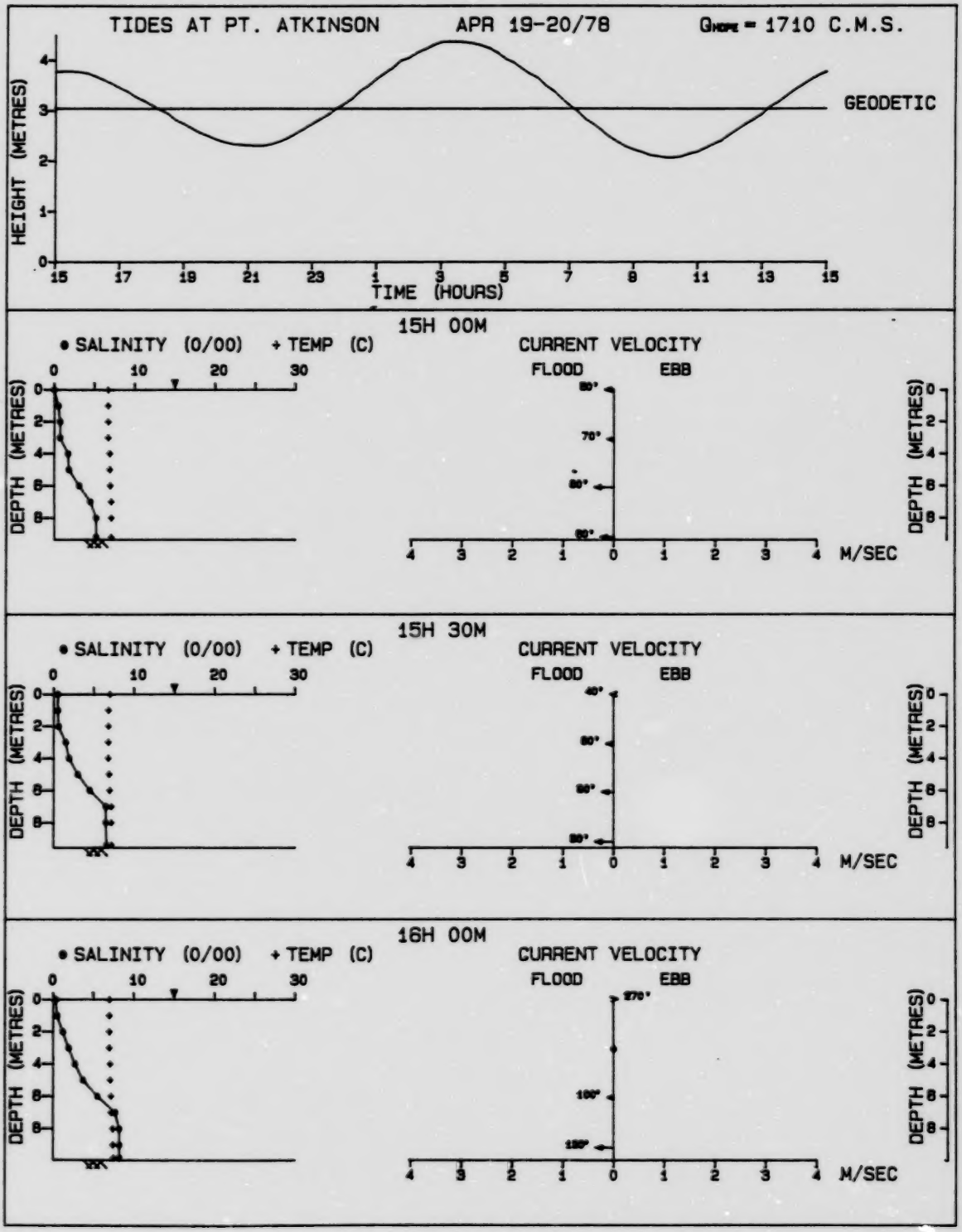
TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
06H 30M	1.0	1.30	7.2			
	2.0	1.40	7.2			
	3.0	1.50	7.2			
	4.0	2.10	7.3			
	5.0	4.40	7.4			
	6.0	7.70	7.5			
	7.0	8.90	7.7			
	8.0	9.20	7.8			
	9.0	10.70	7.9			
	9.7	11.00	8.0			
07H 00M	0.0	1.00	7.2	0.65		230
	1.0	1.10	7.2			
	2.0	1.10	7.2			
	3.0	1.10	7.2			
	3.1			0.70		230
	4.0	1.20	7.2			
	5.0	2.20	7.2			
	6.0	3.50	7.3			
	6.1			0.44		230
	7.0	4.10	7.4			
	8.0	9.00	7.4			
	9.2			0.22		230
	9.3	9.40	7.8			
07H 30M	0.0	0.80	7.2	0.86		240
	1.0	0.80	7.2			
	2.0	0.80	7.2			
	3.0	0.90	7.2			
	3.1			0.62		200
	4.0	1.10	7.3			
	5.0	1.50	7.3			
	6.0	2.30	7.3			
	6.1			0.30		200
	7.0	3.10	7.4			
	8.0	4.50	7.4			
	9.0	7.70	7.7	0.30		200
08H 00M	0.0	0.20	7.2	0.68		220
	1.0	0.40	7.2			
	2.0	0.50	7.2			
	3.0	0.50	7.2			
	3.1			0.71		230
	4.0	0.60	7.2			
	5.0	1.60	7.3			
	6.0	1.80	7.3			
	6.1			0.68		230

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.

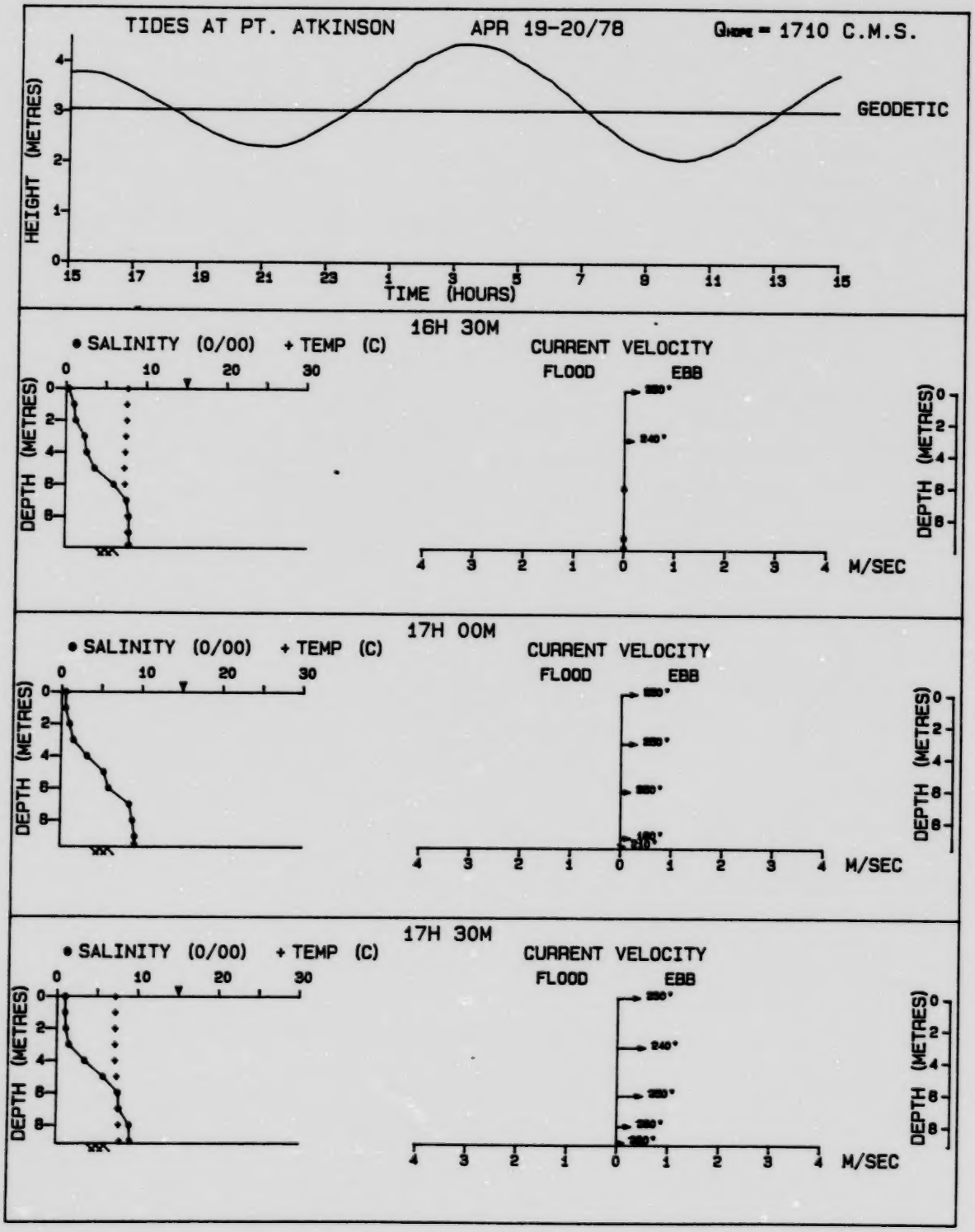
APR 20-21/78 RIVER DISCHARGE AT HOPE = 1760 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
08H 00M	7.0	1.80	7.3			
	8.0	1.90	7.3			
	8.8	2.00	7.3	0.19		220

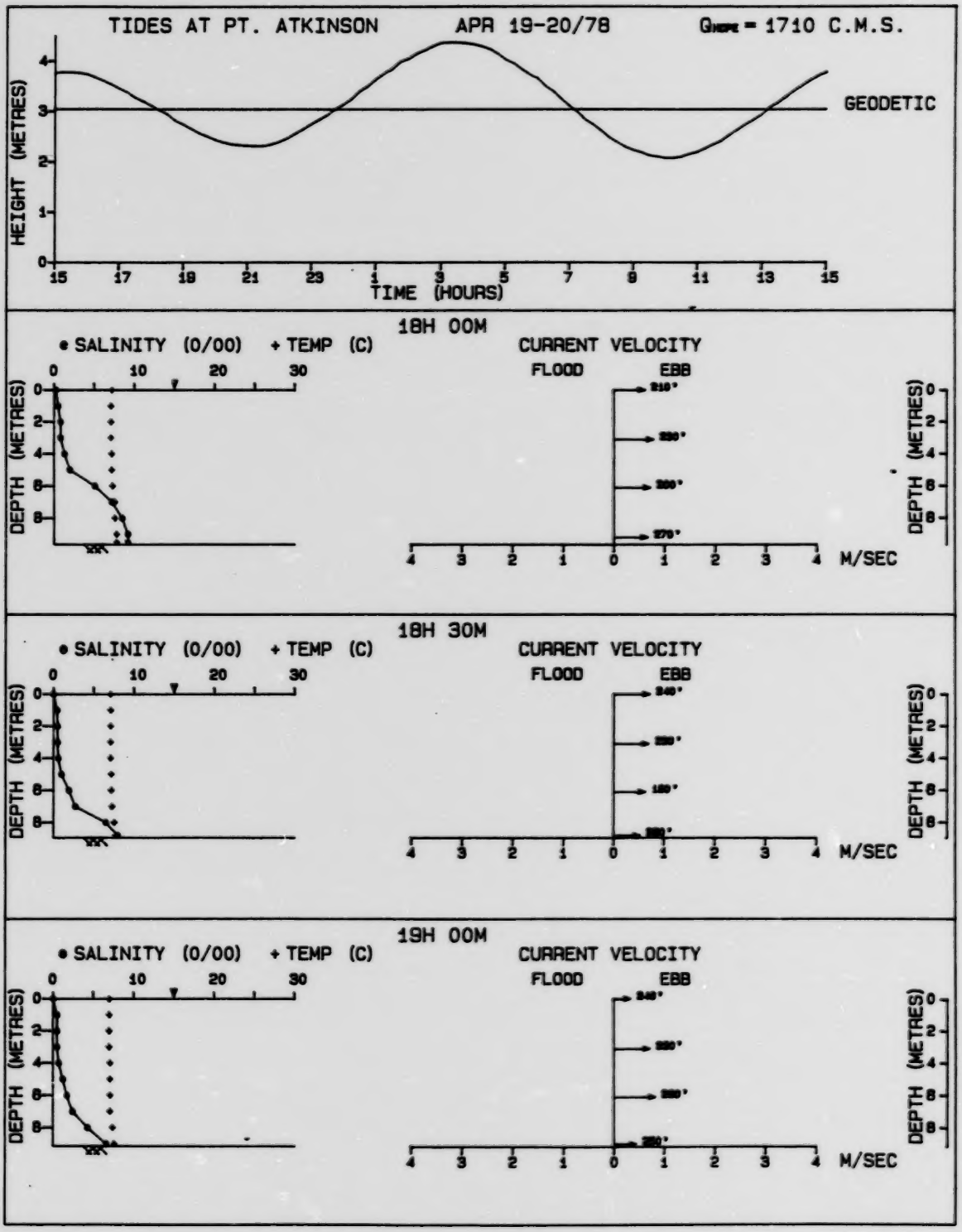
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



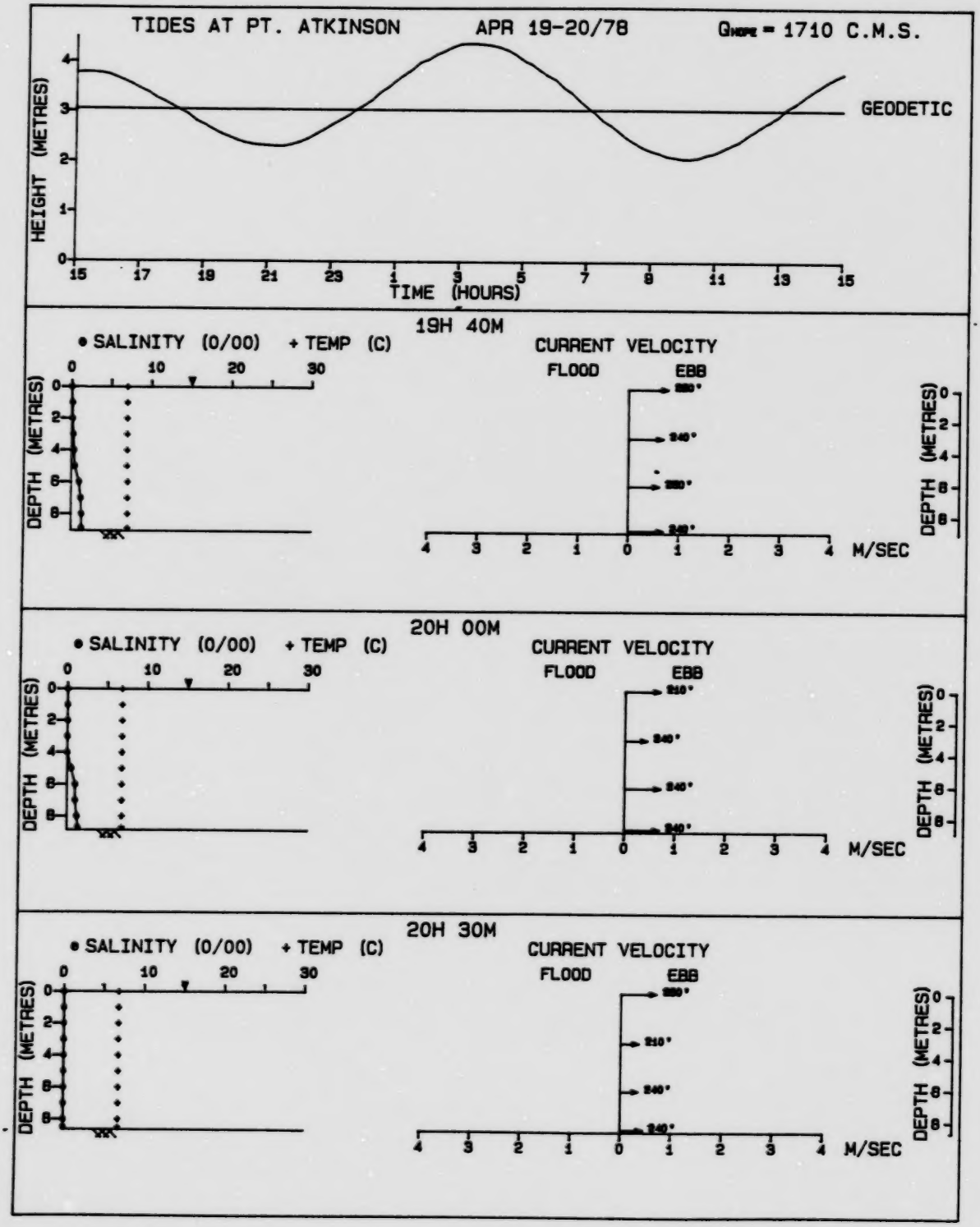
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



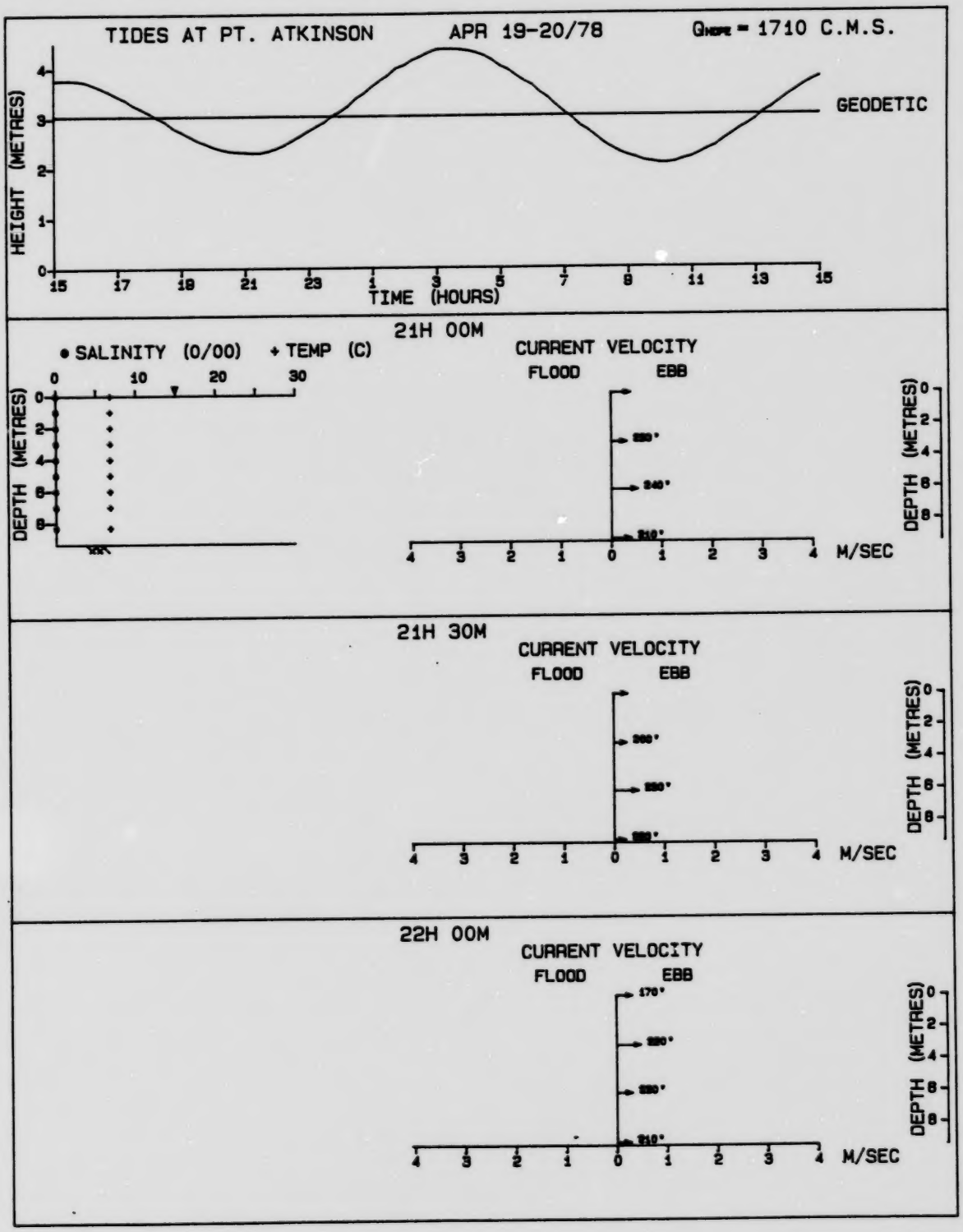
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



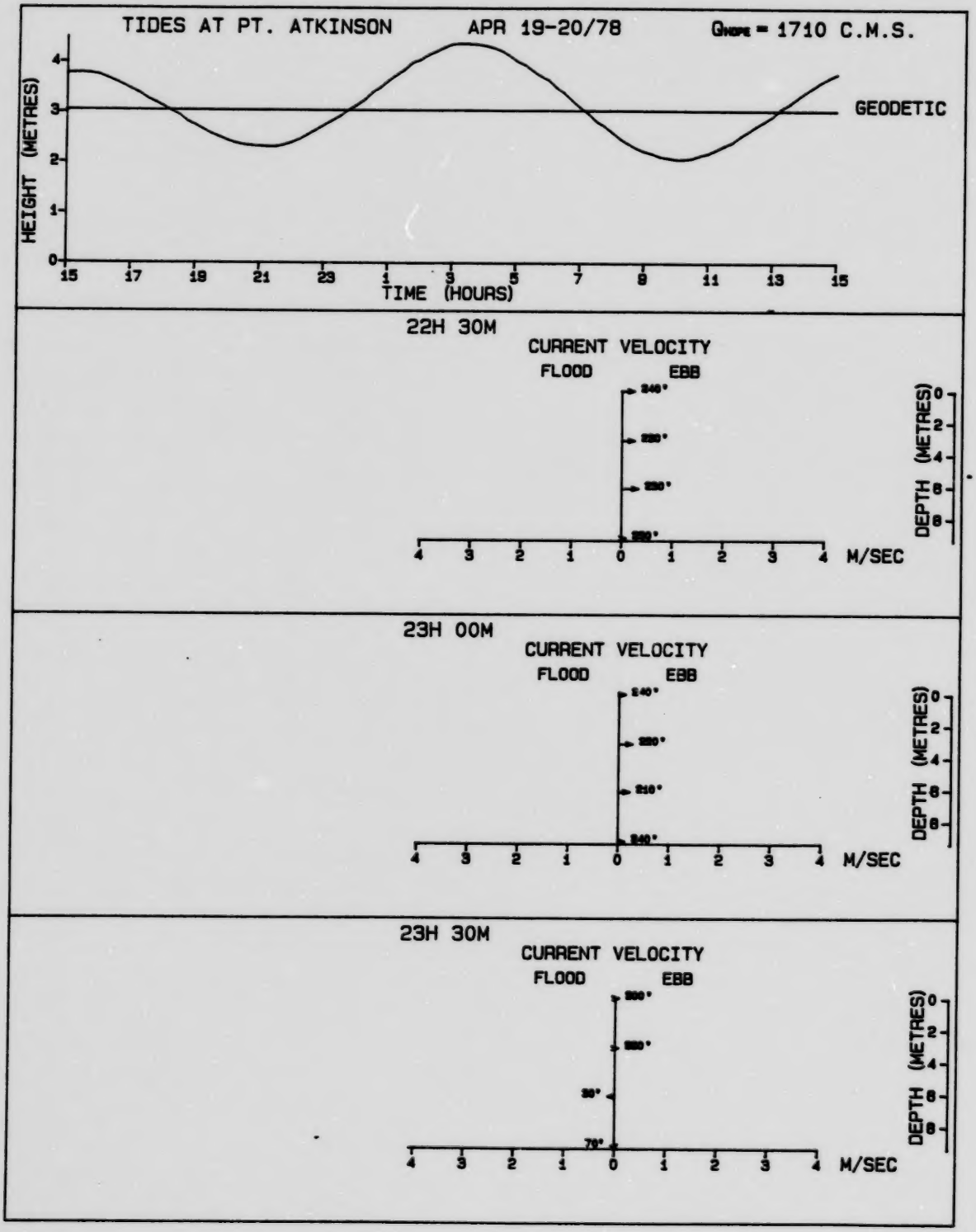
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



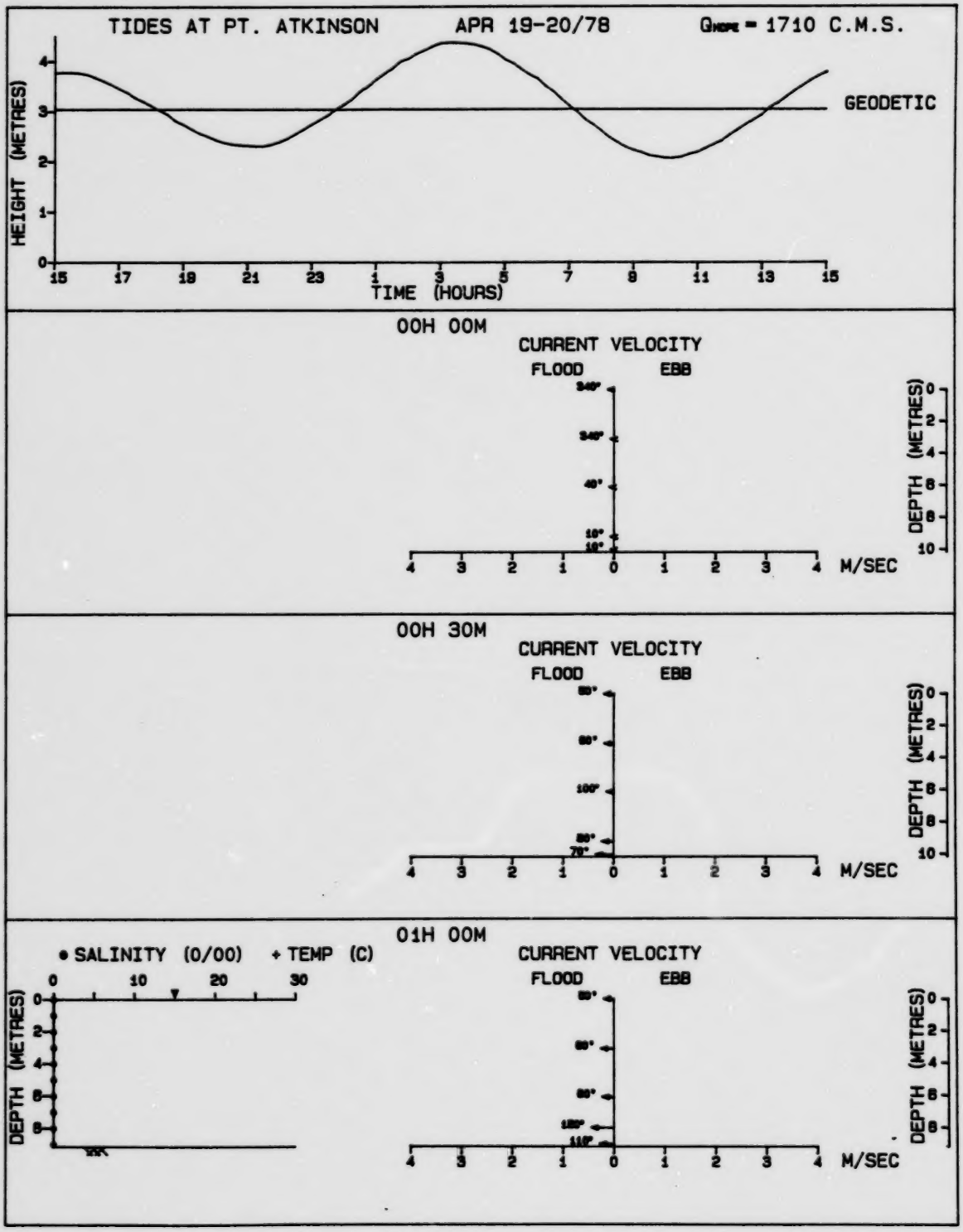
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



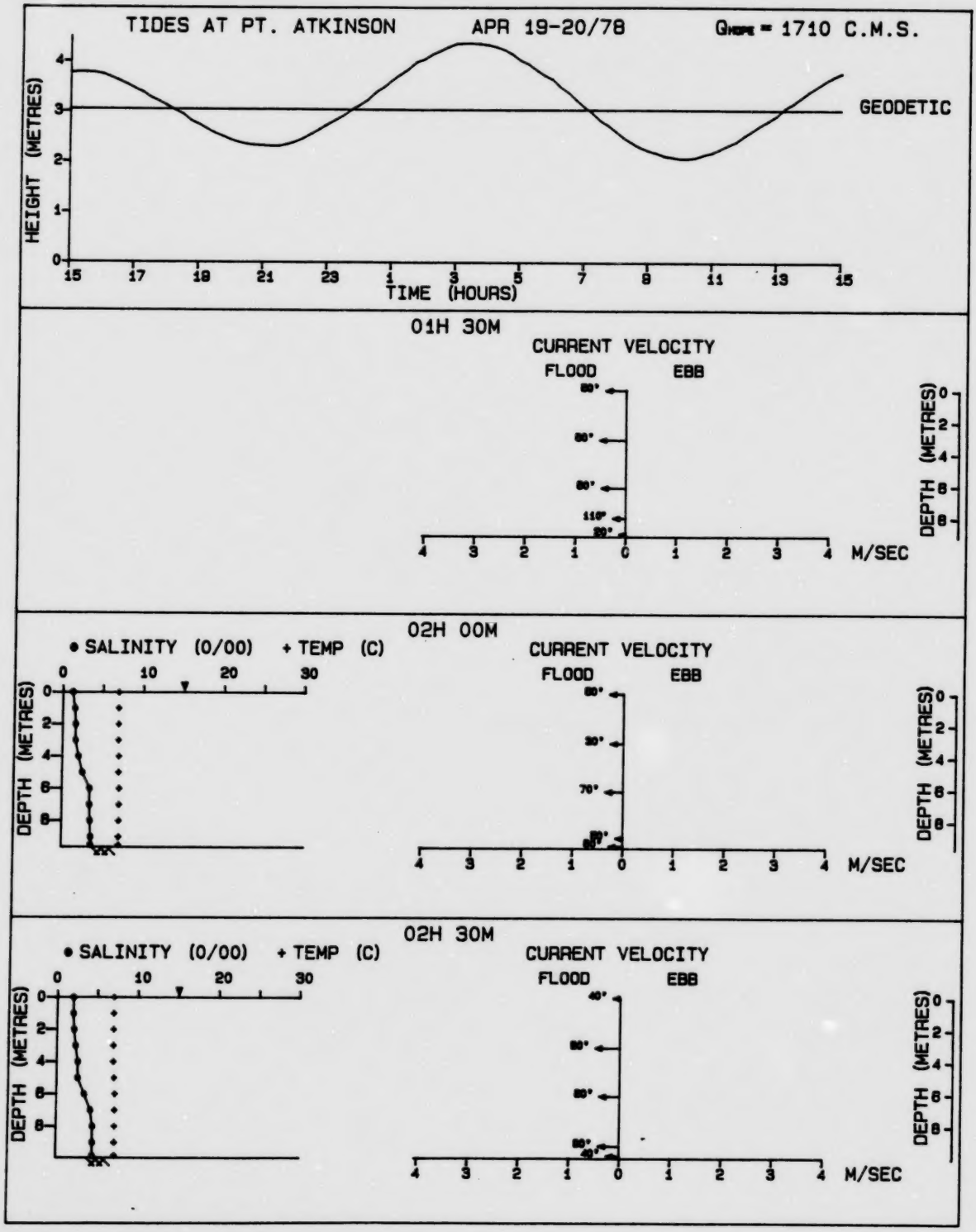
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



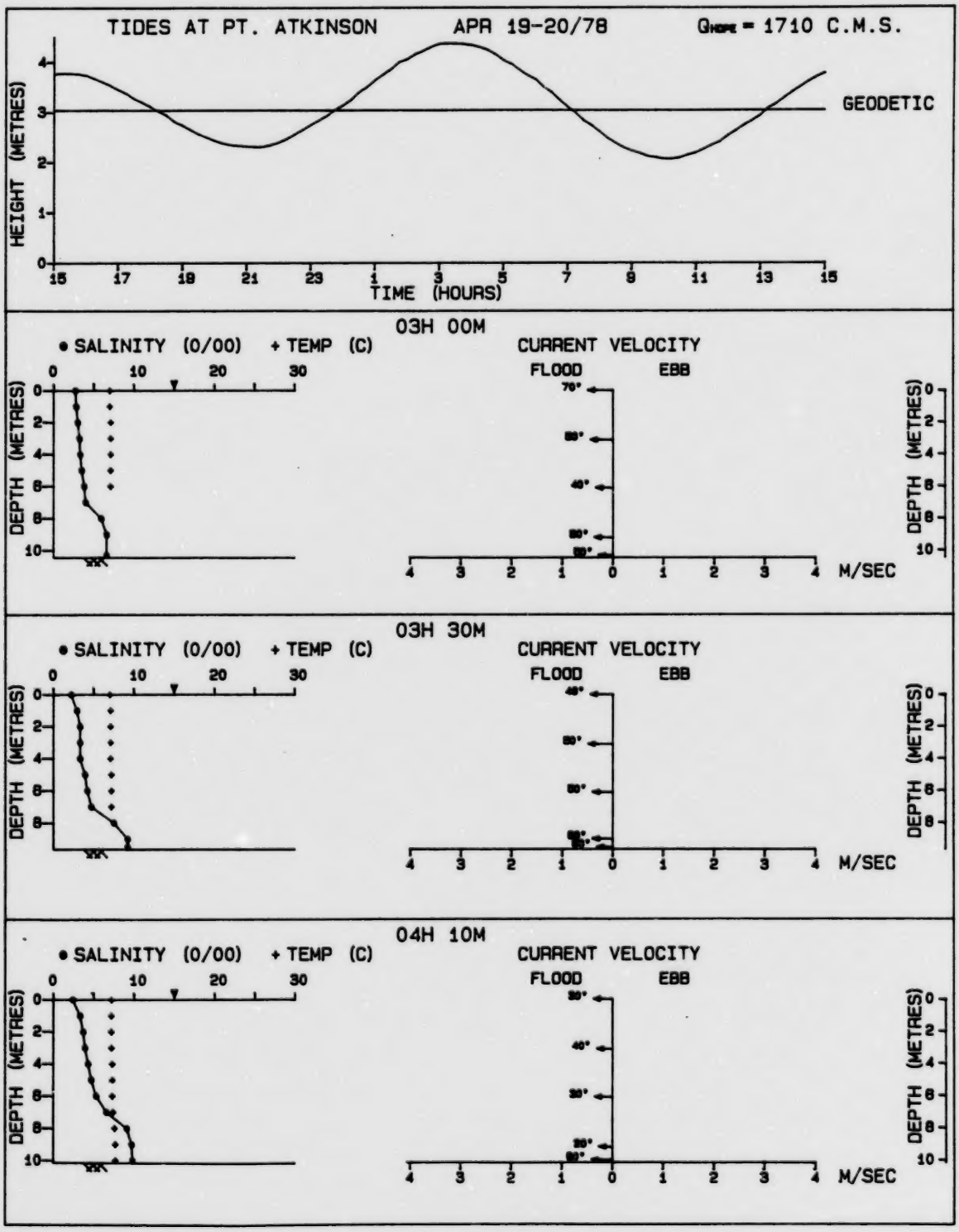
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



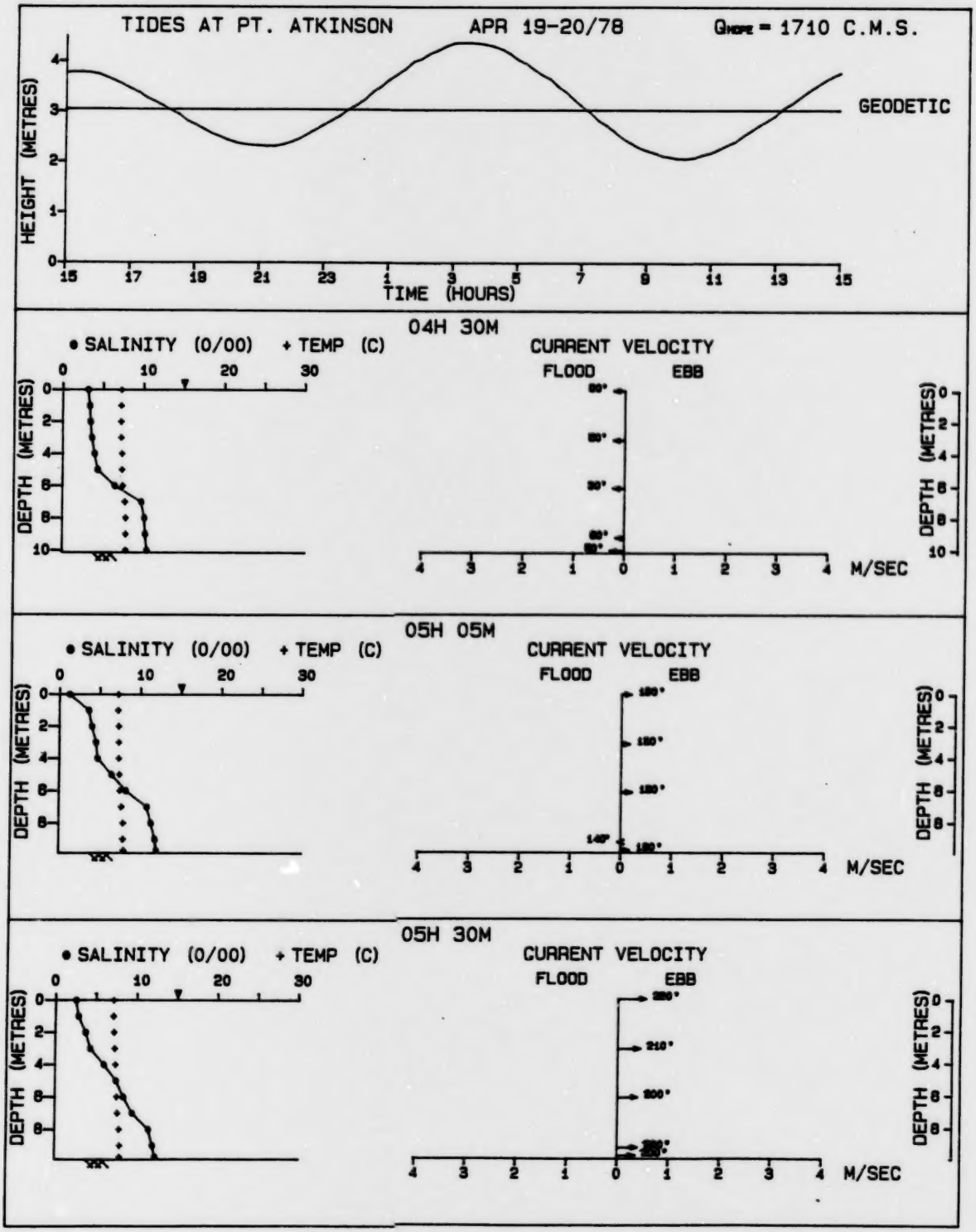
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



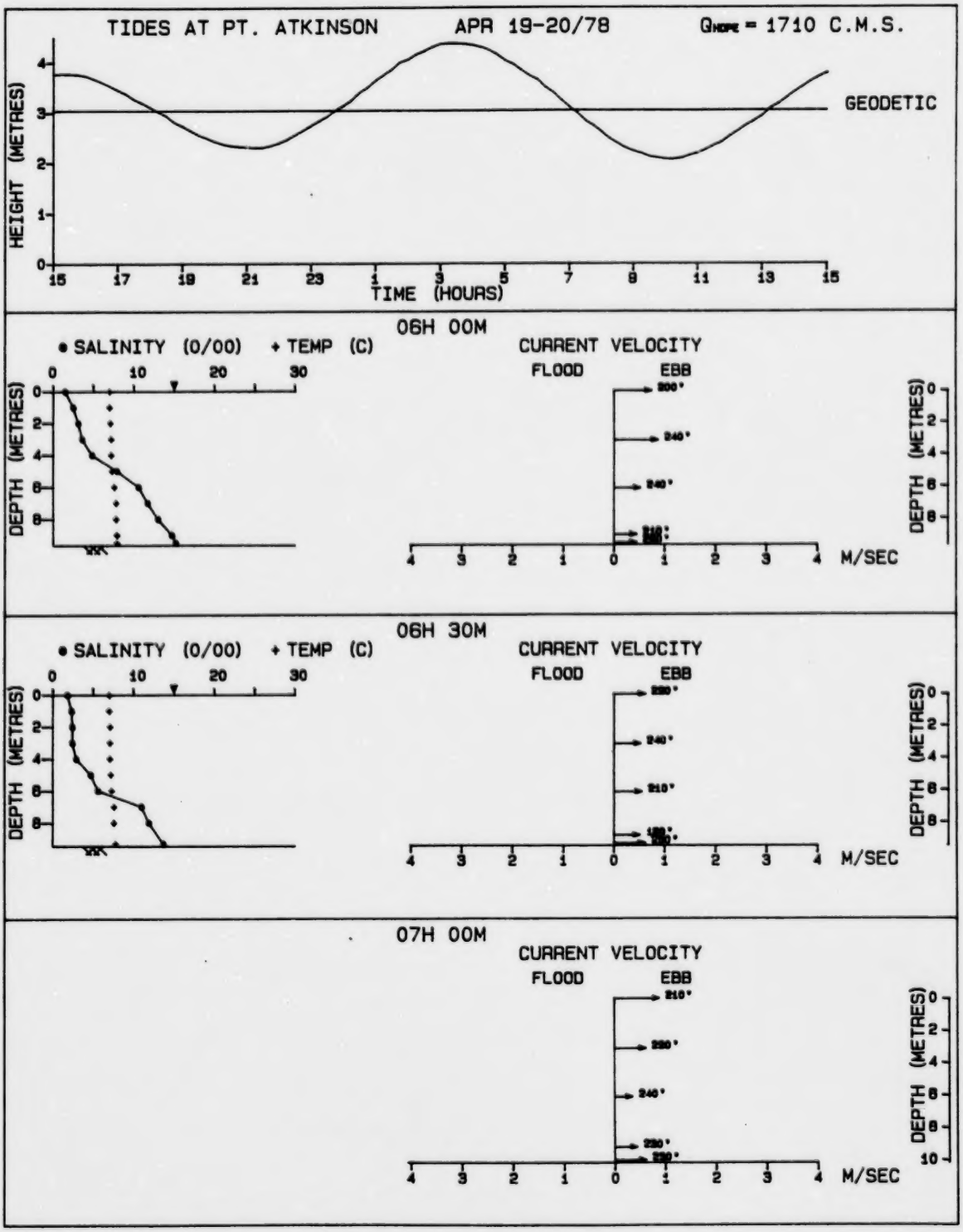
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



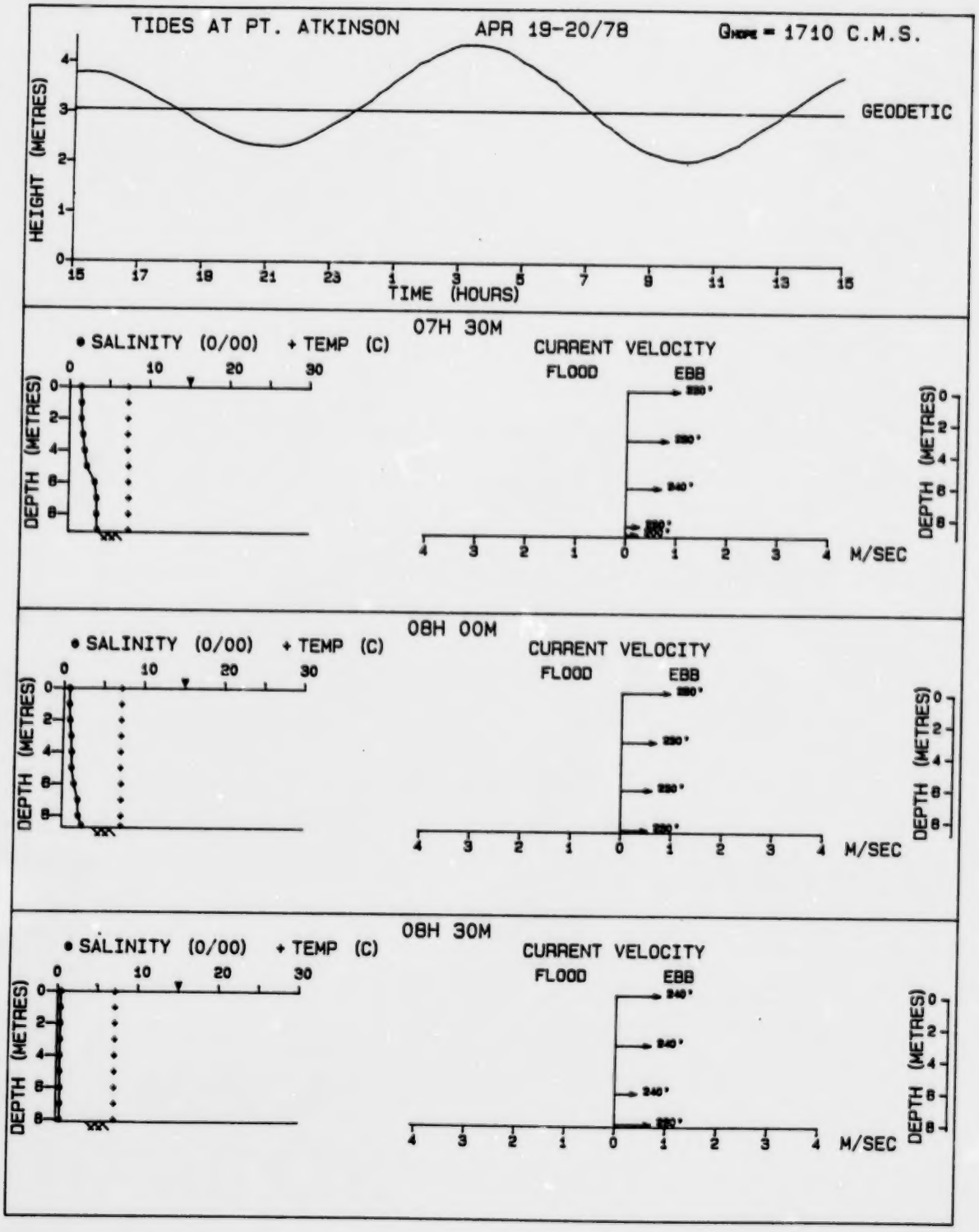
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



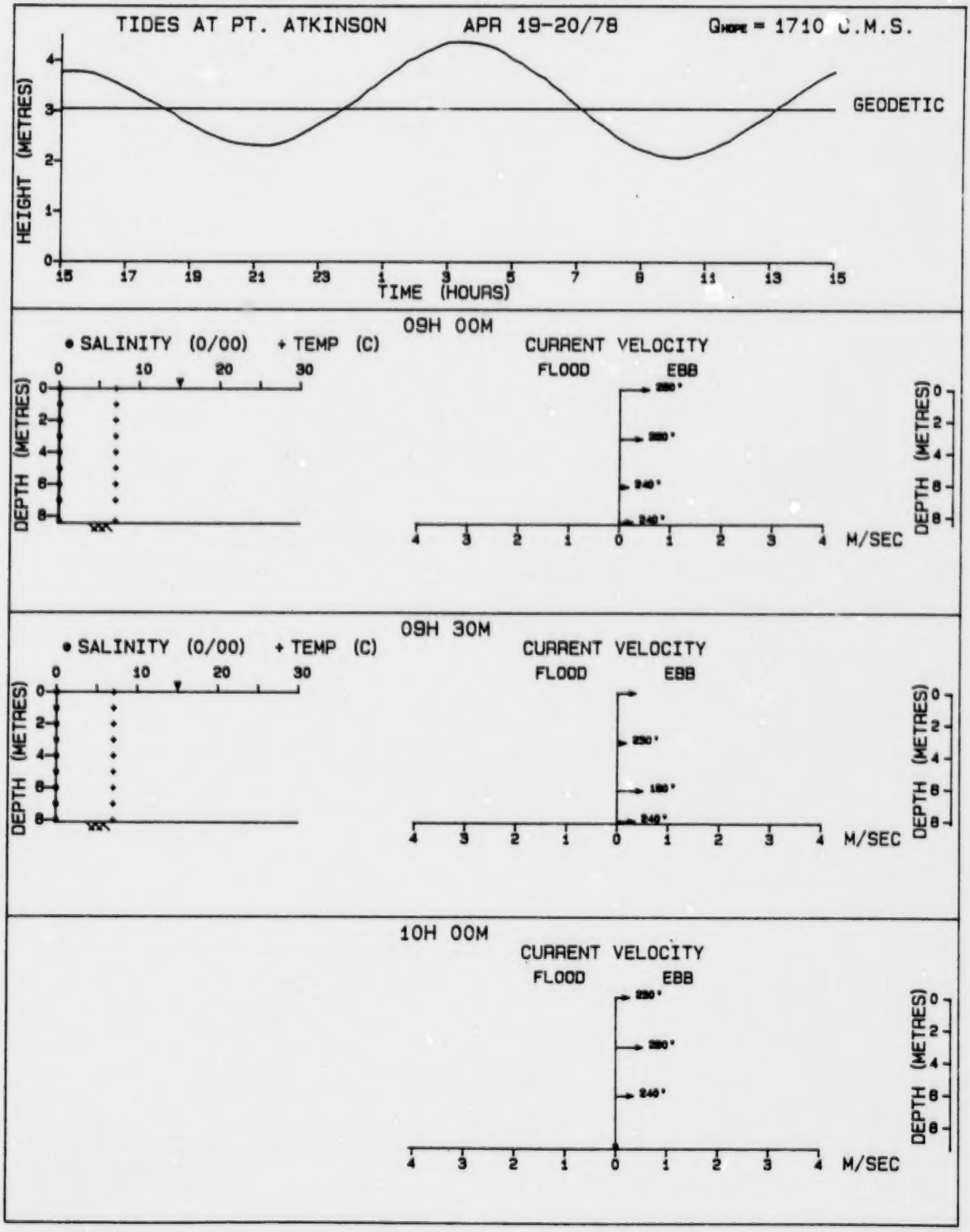
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



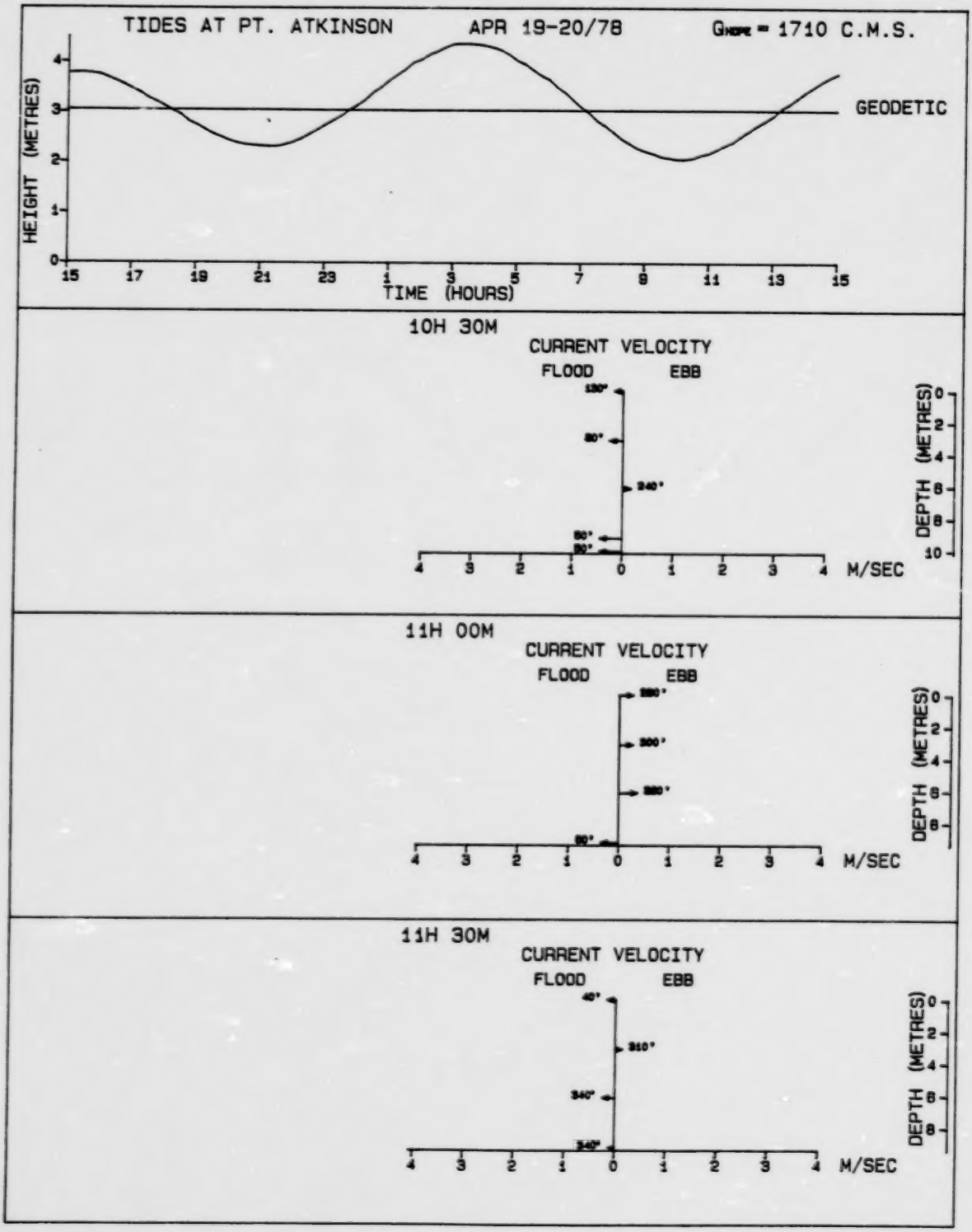
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



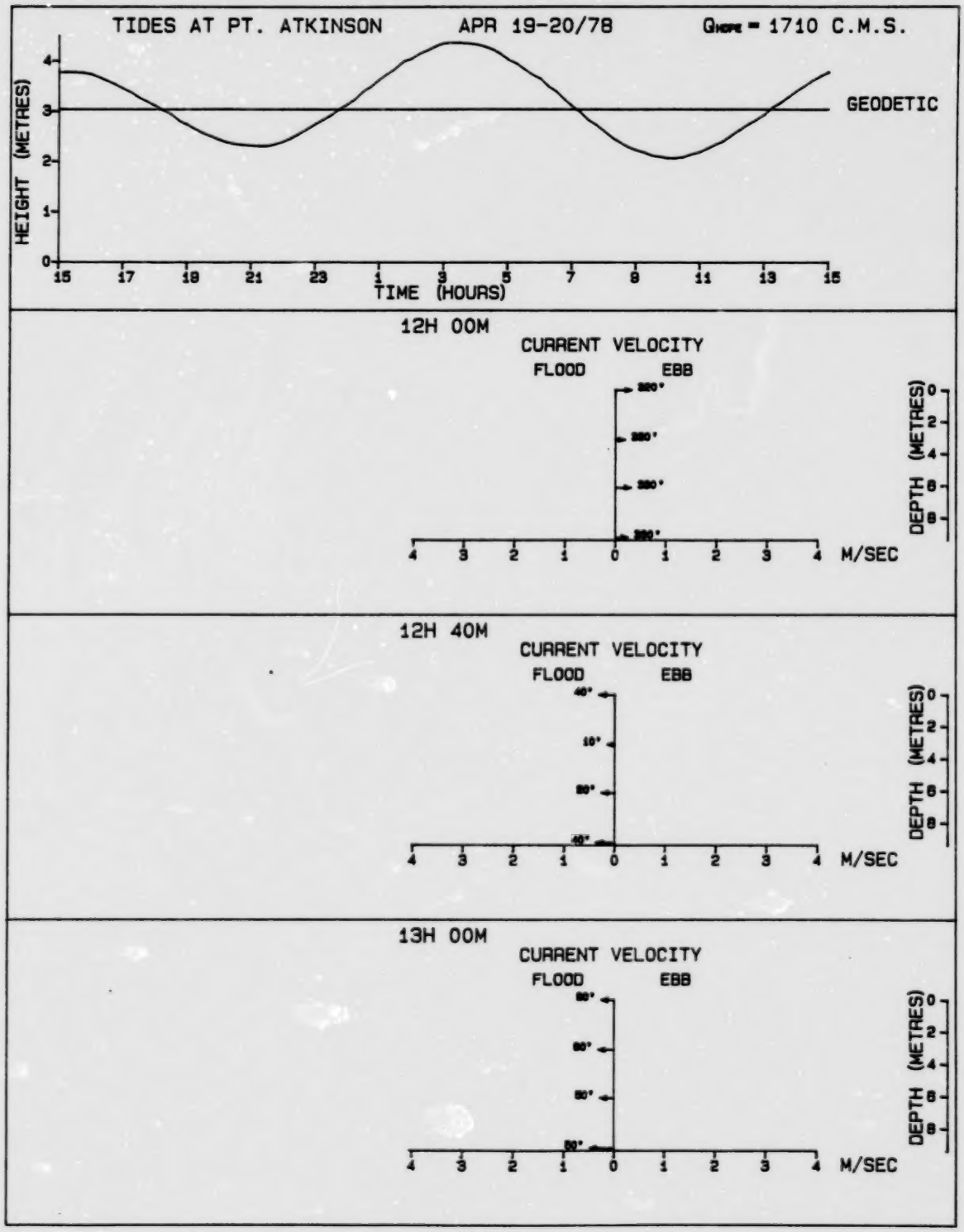
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



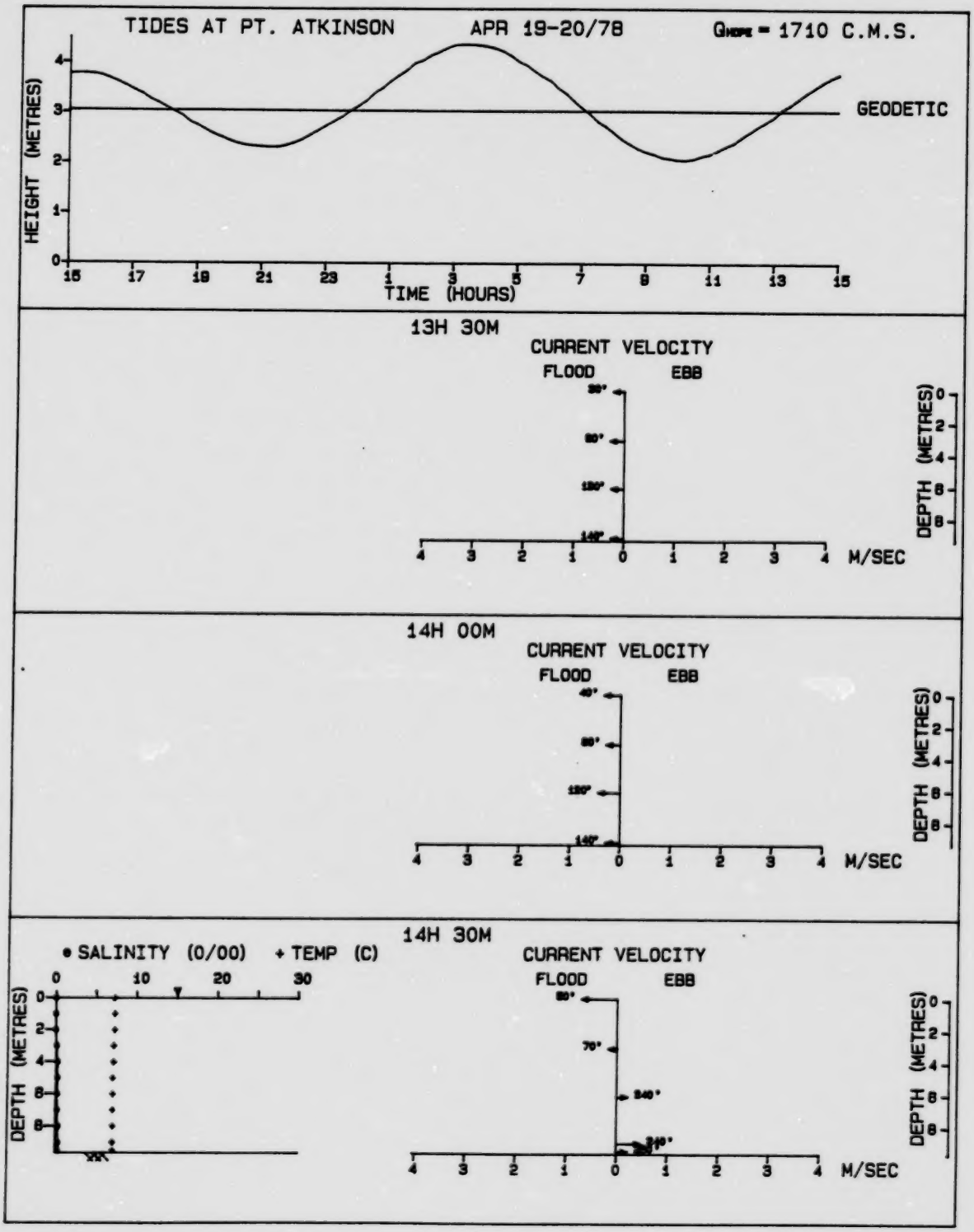
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



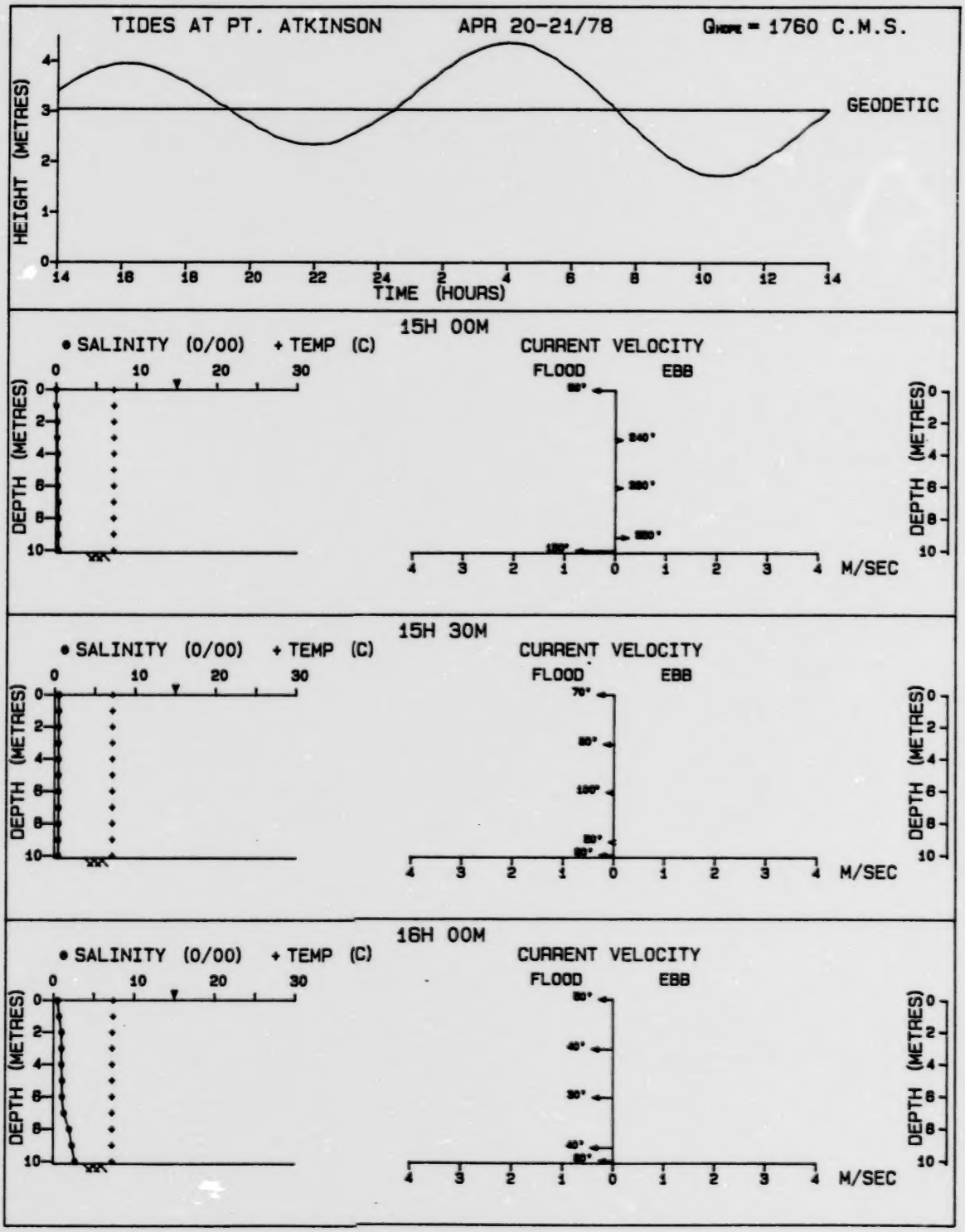
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



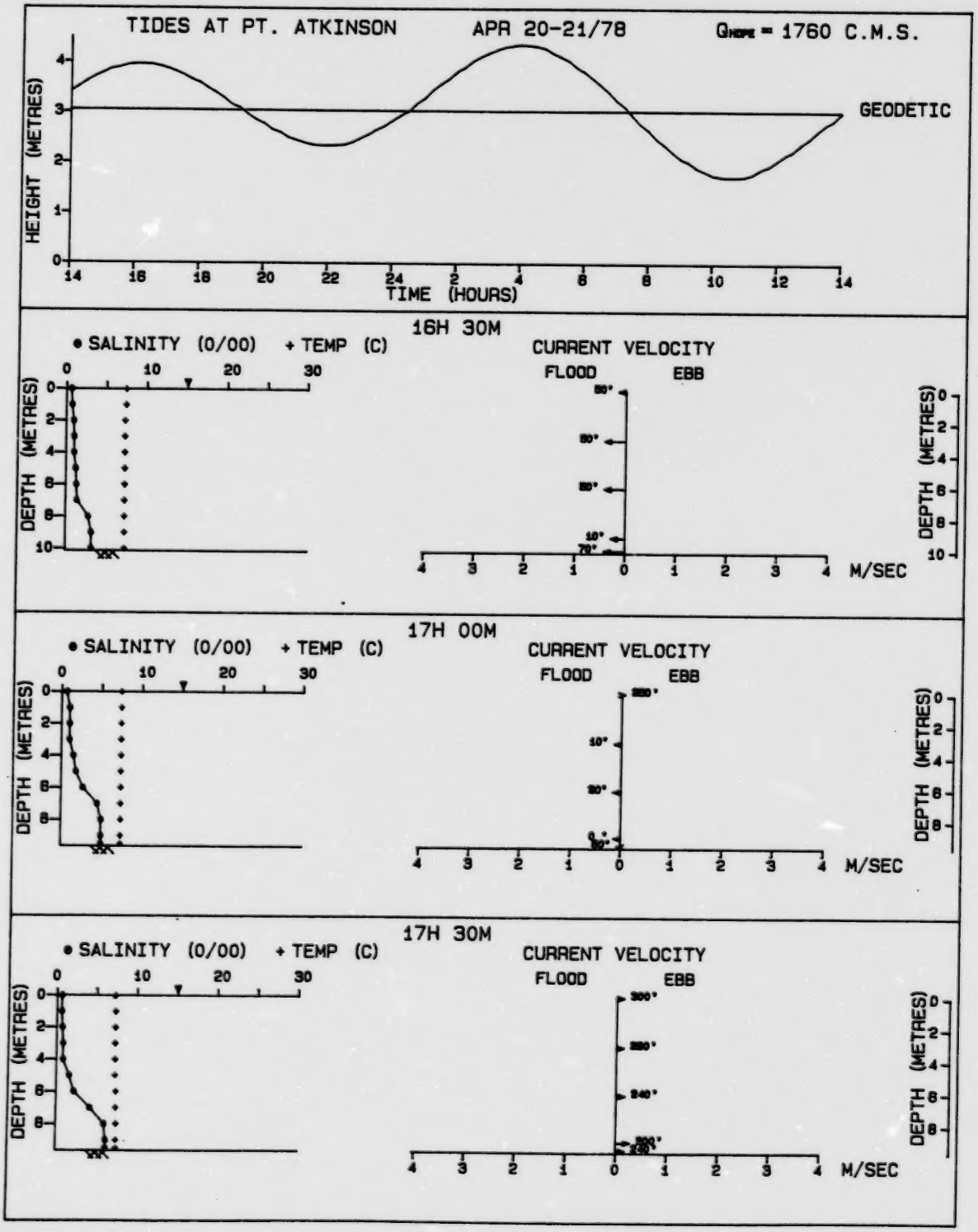
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



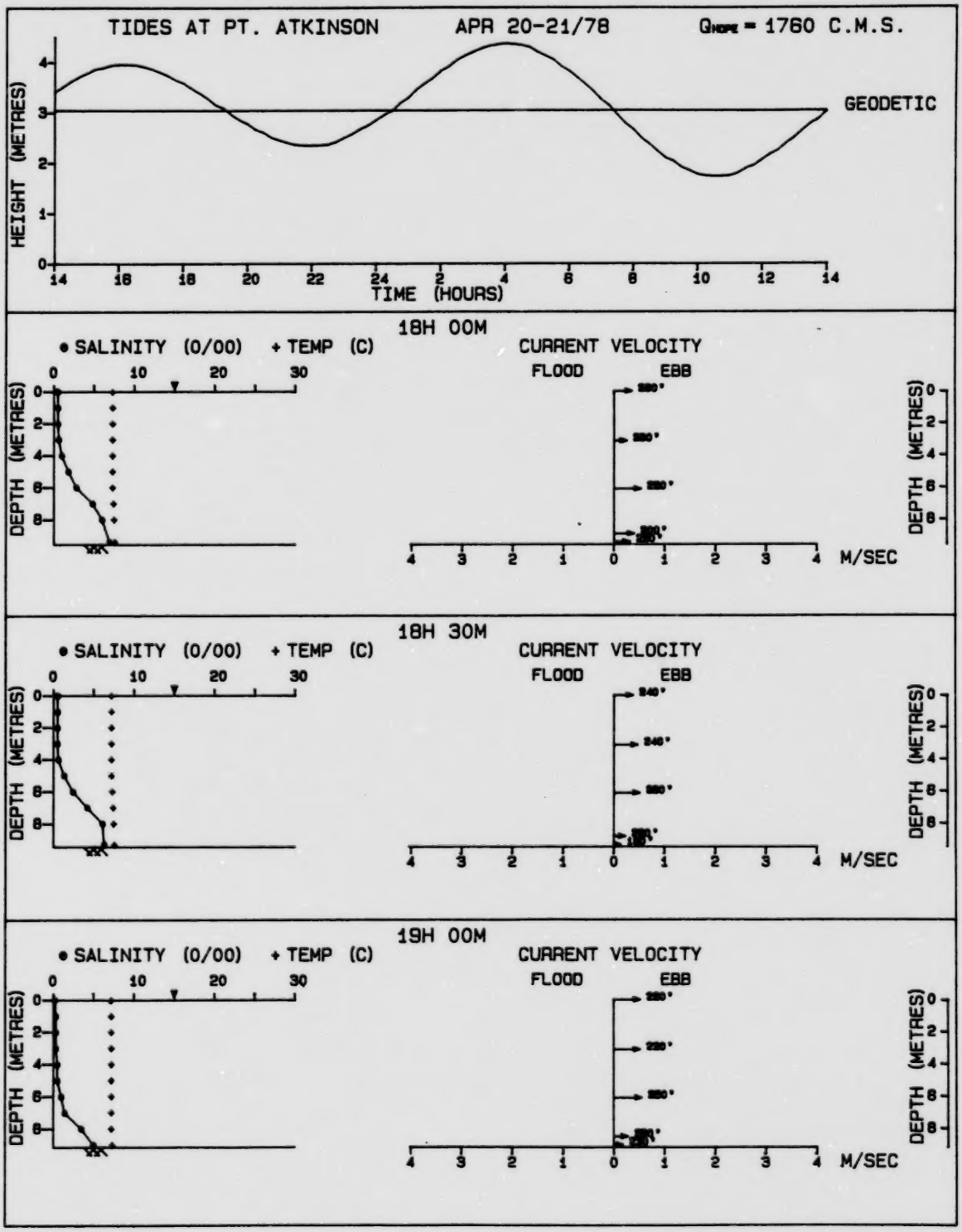
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



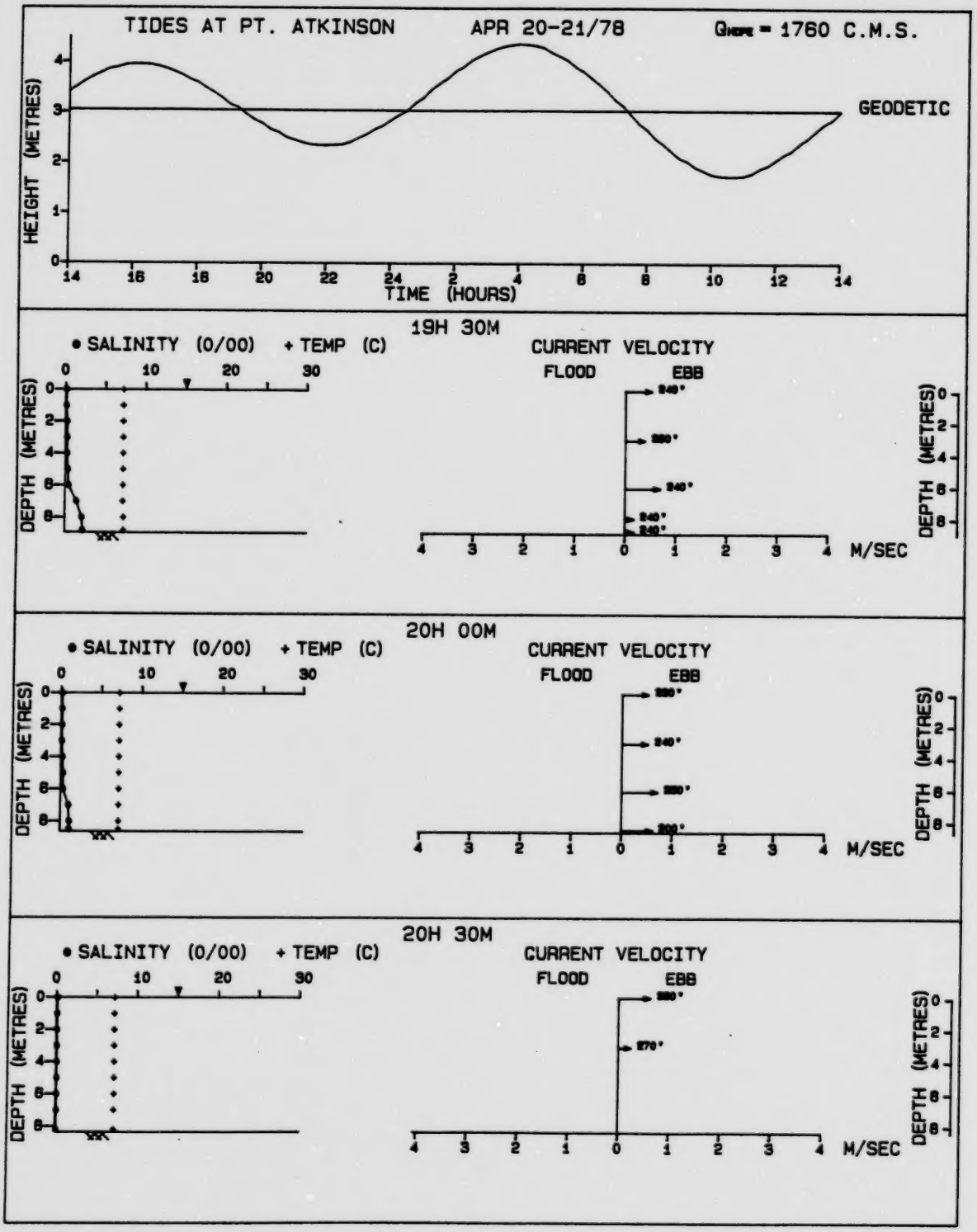
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



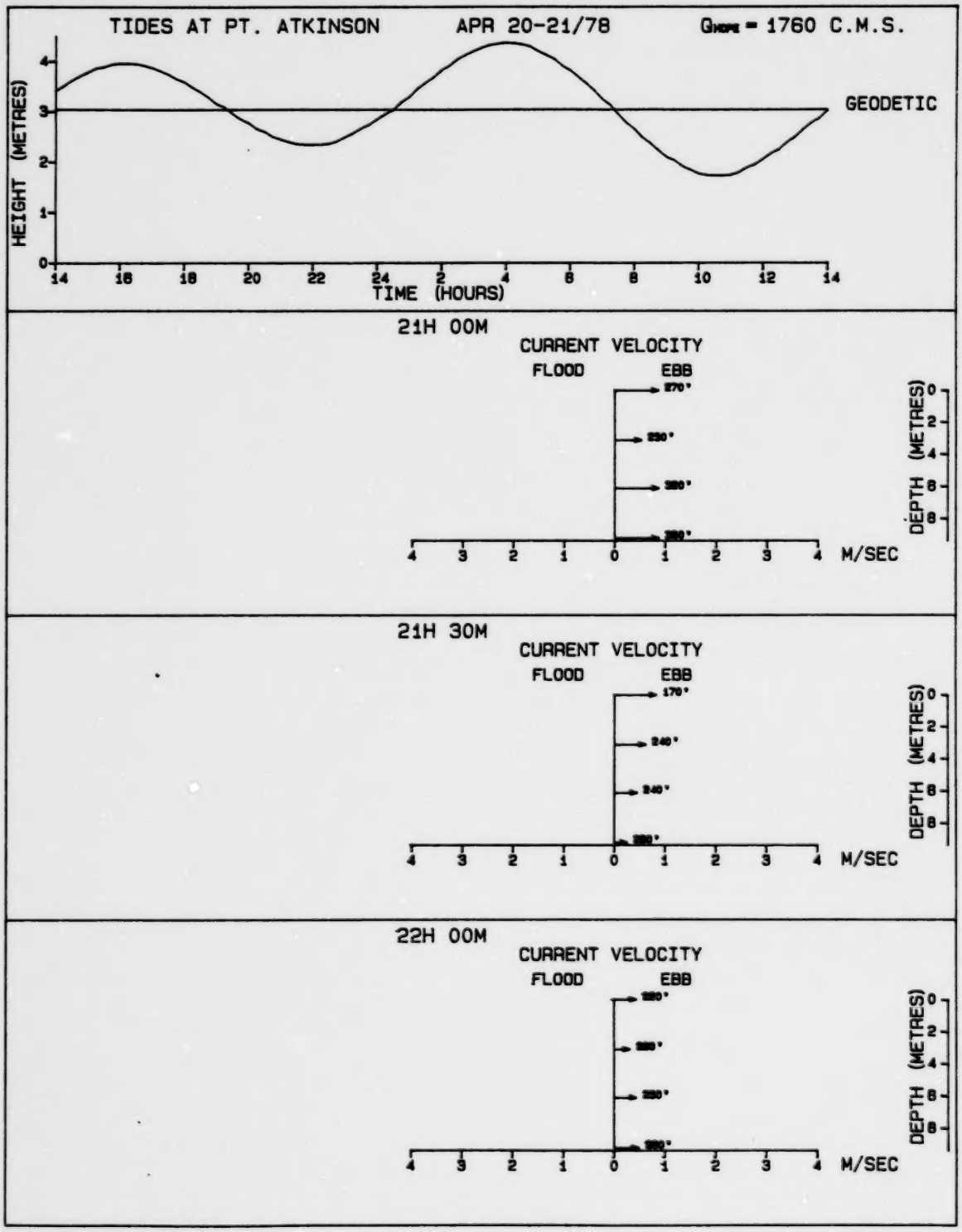
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



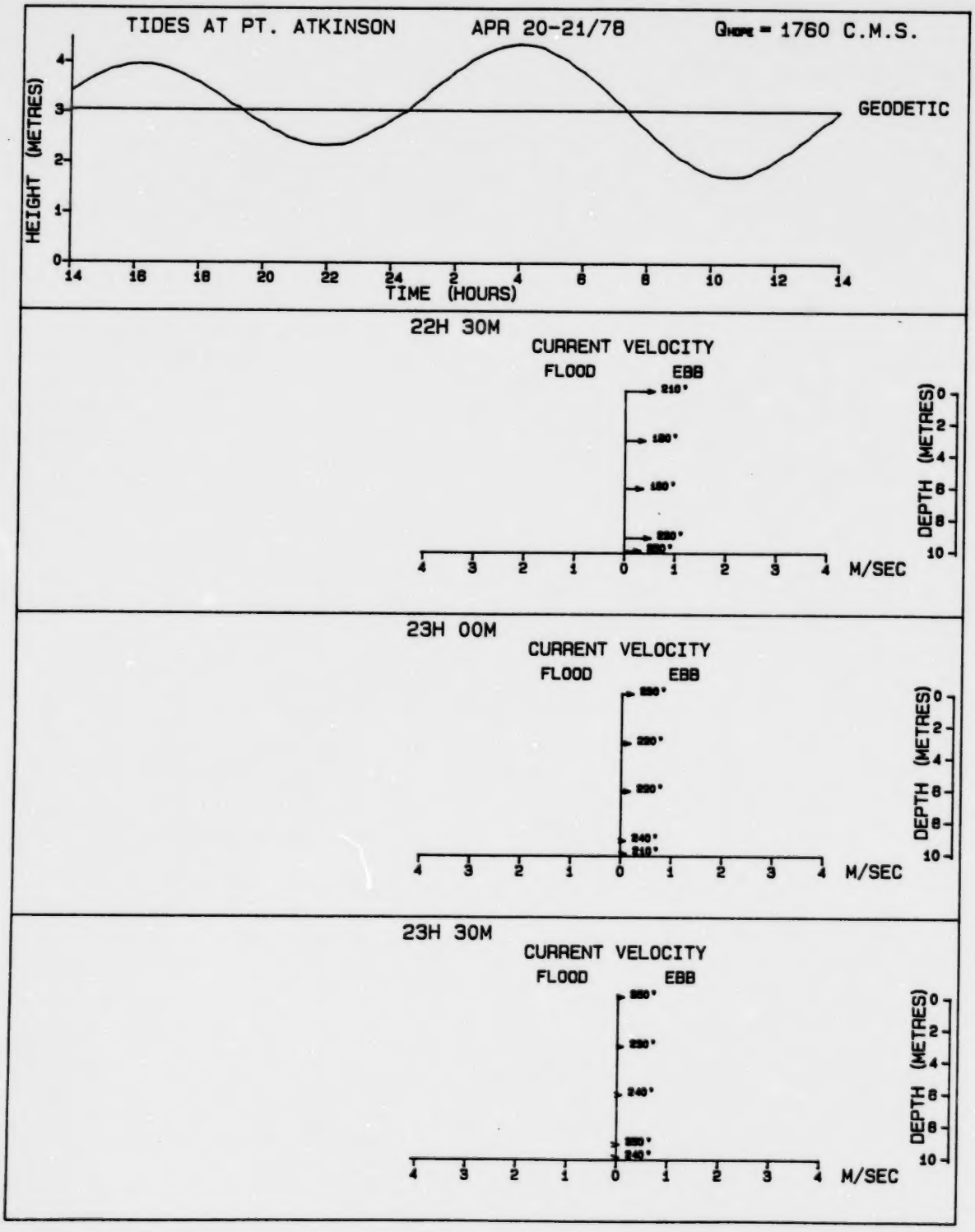
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



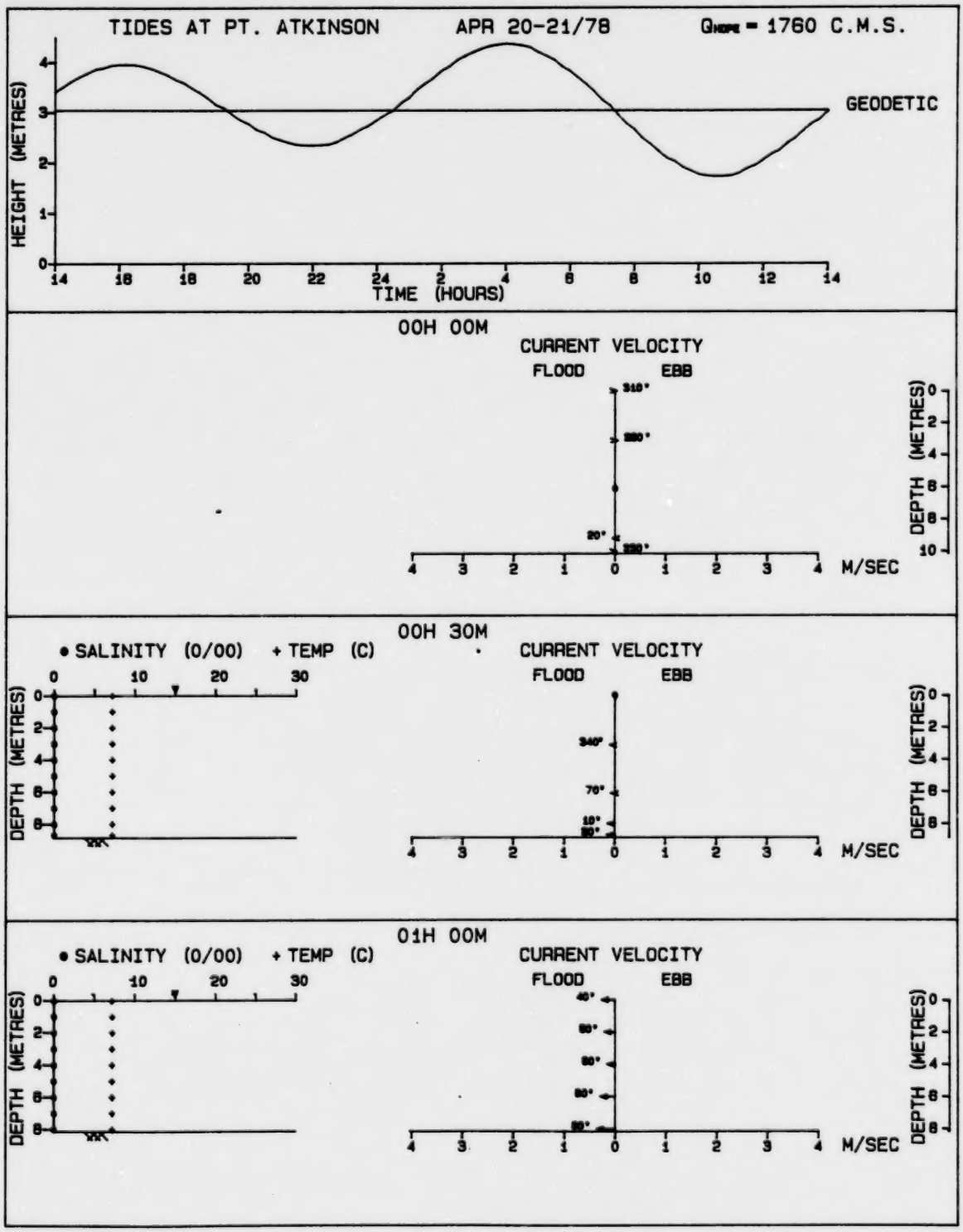
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



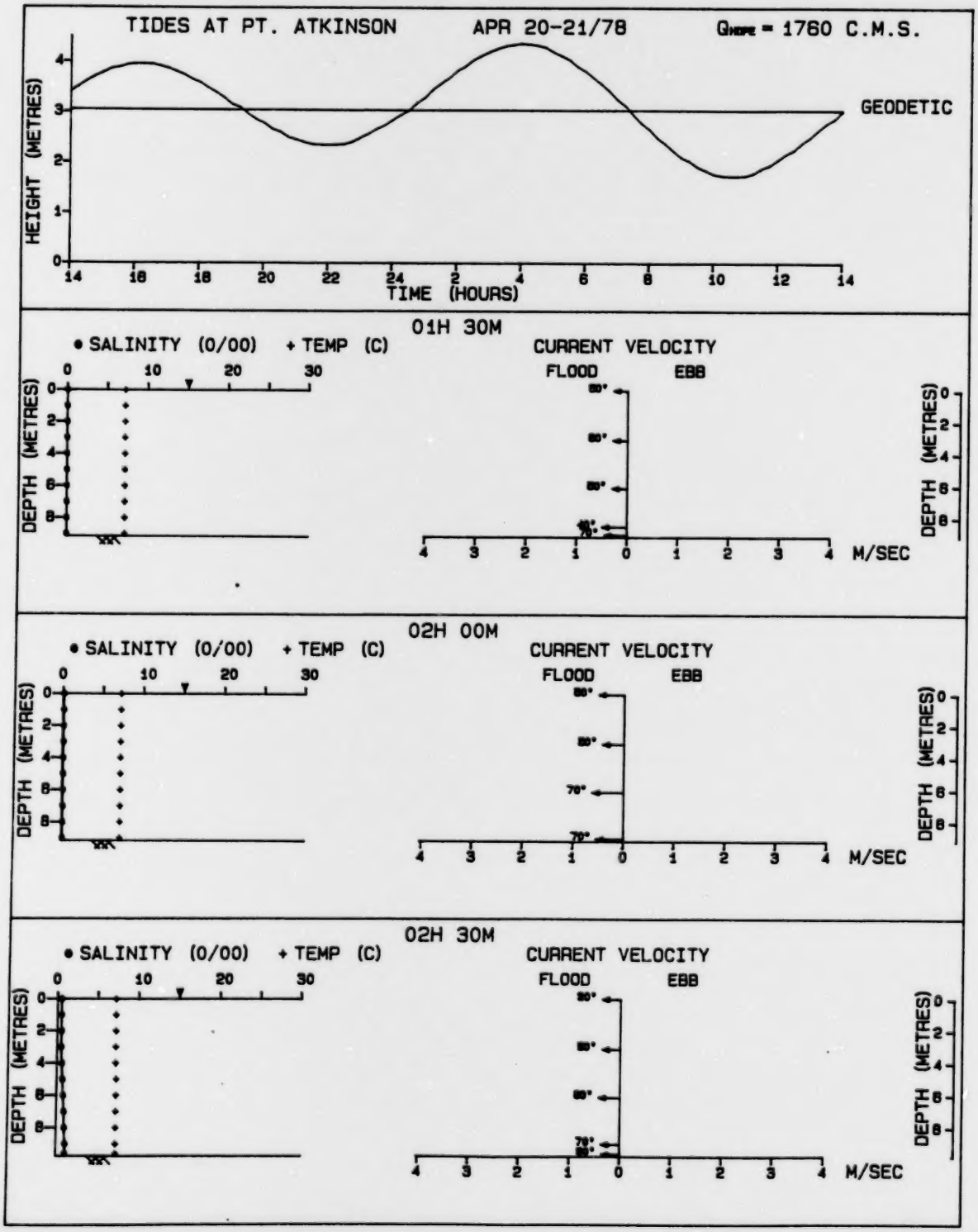
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



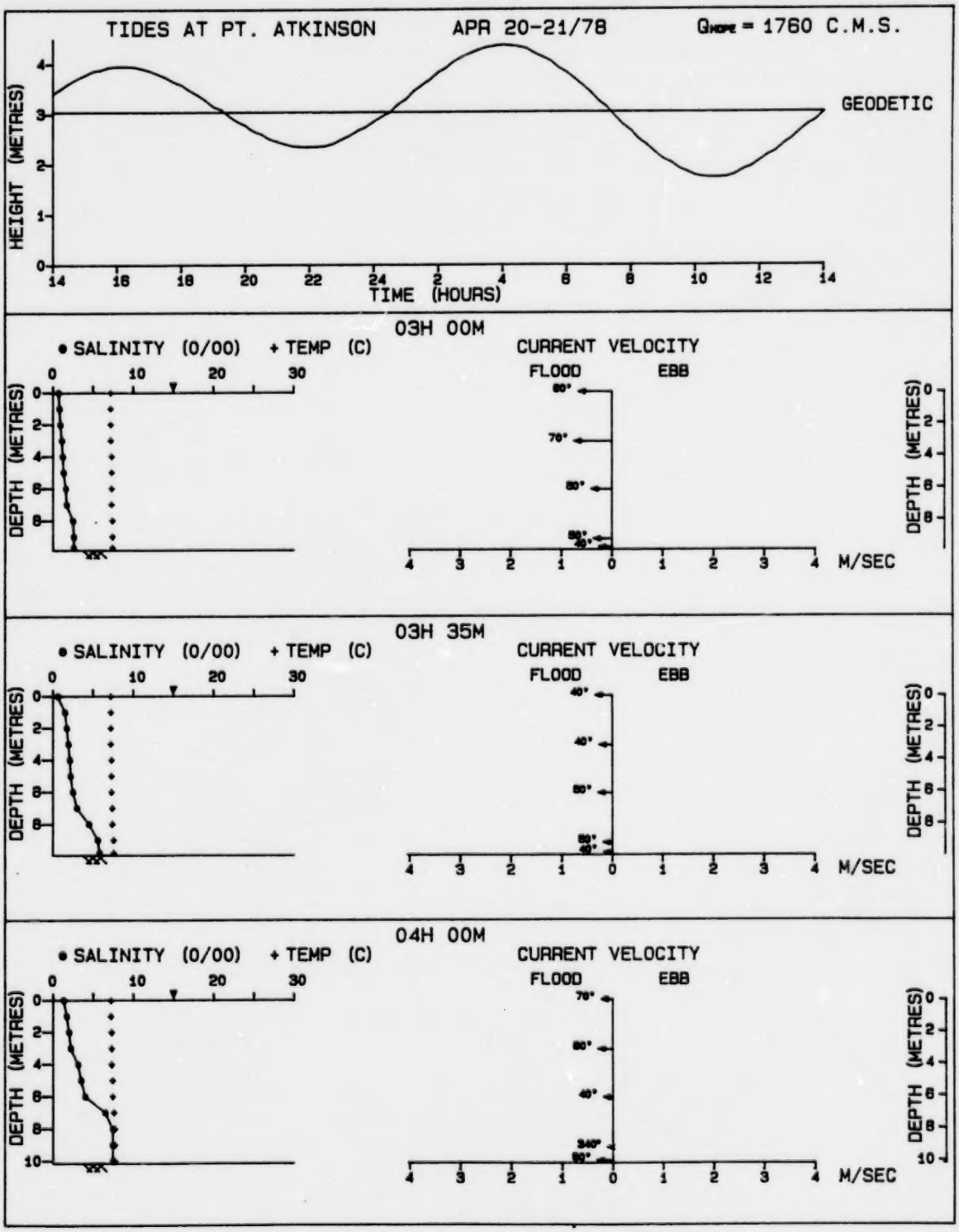
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



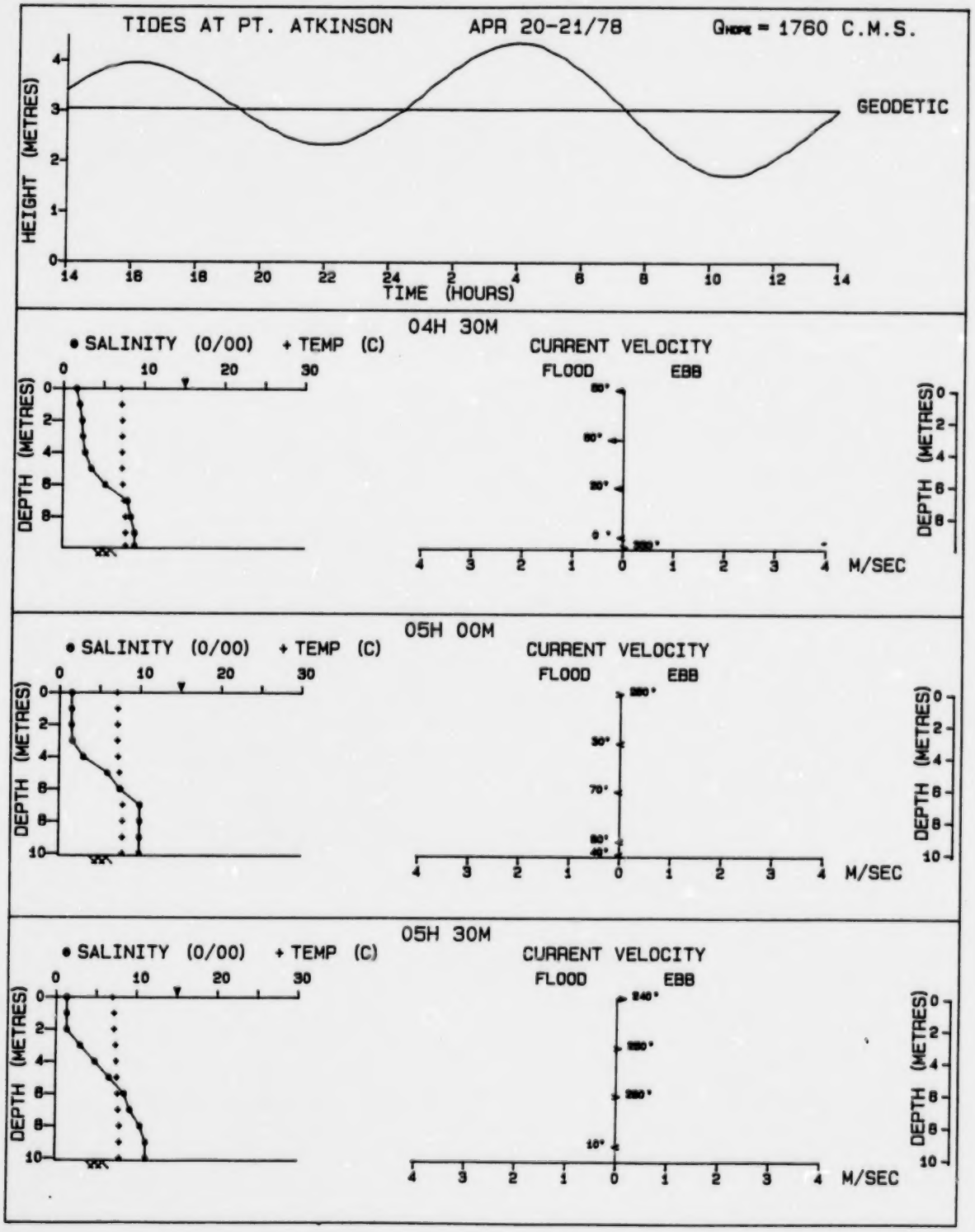
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



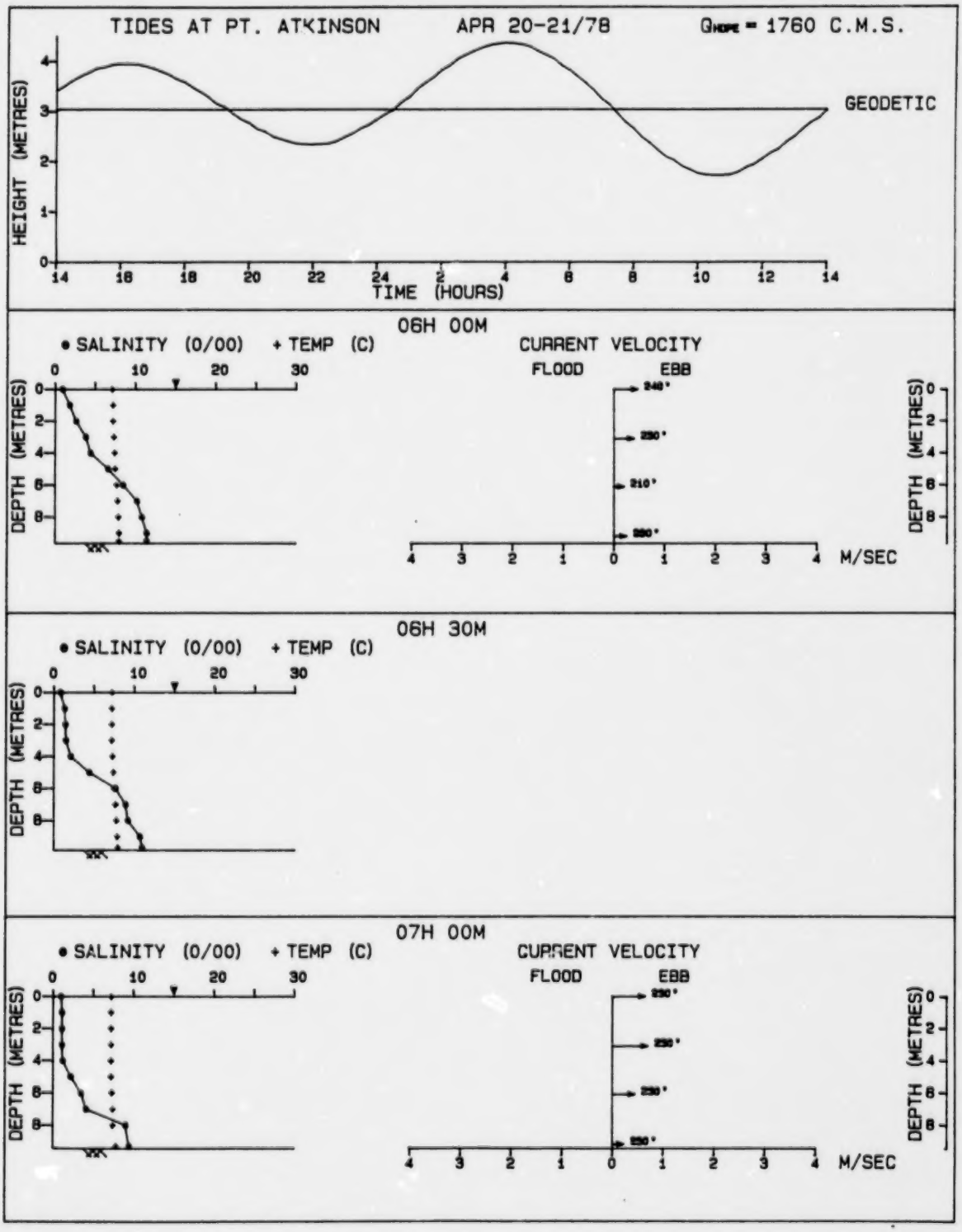
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



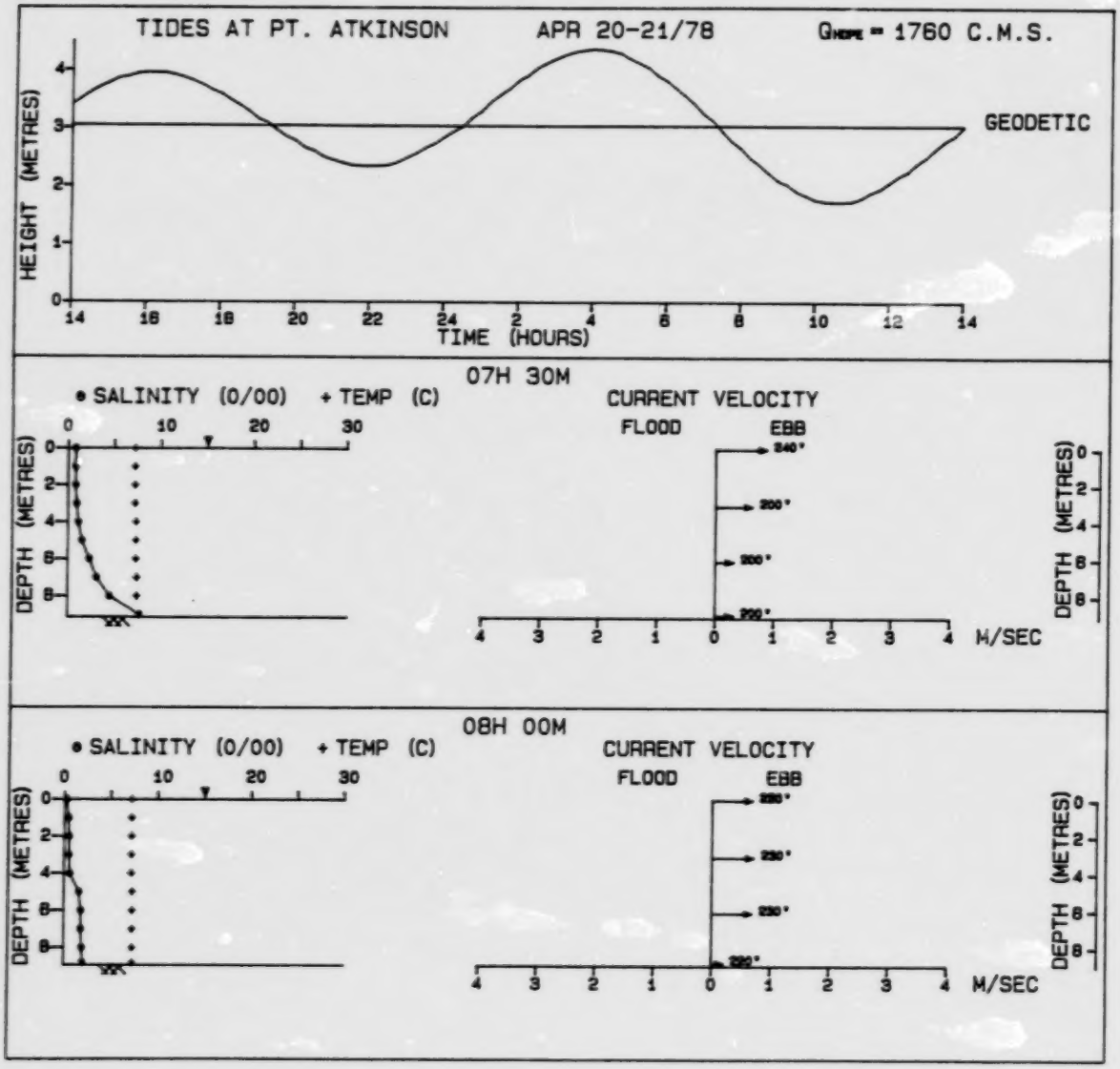
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT OAK ST. BR.



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT ENTR. N-ARM

APRIL 21/78 RIVER DISCHARGE AT HOPE = 1790 CU.M/SEC

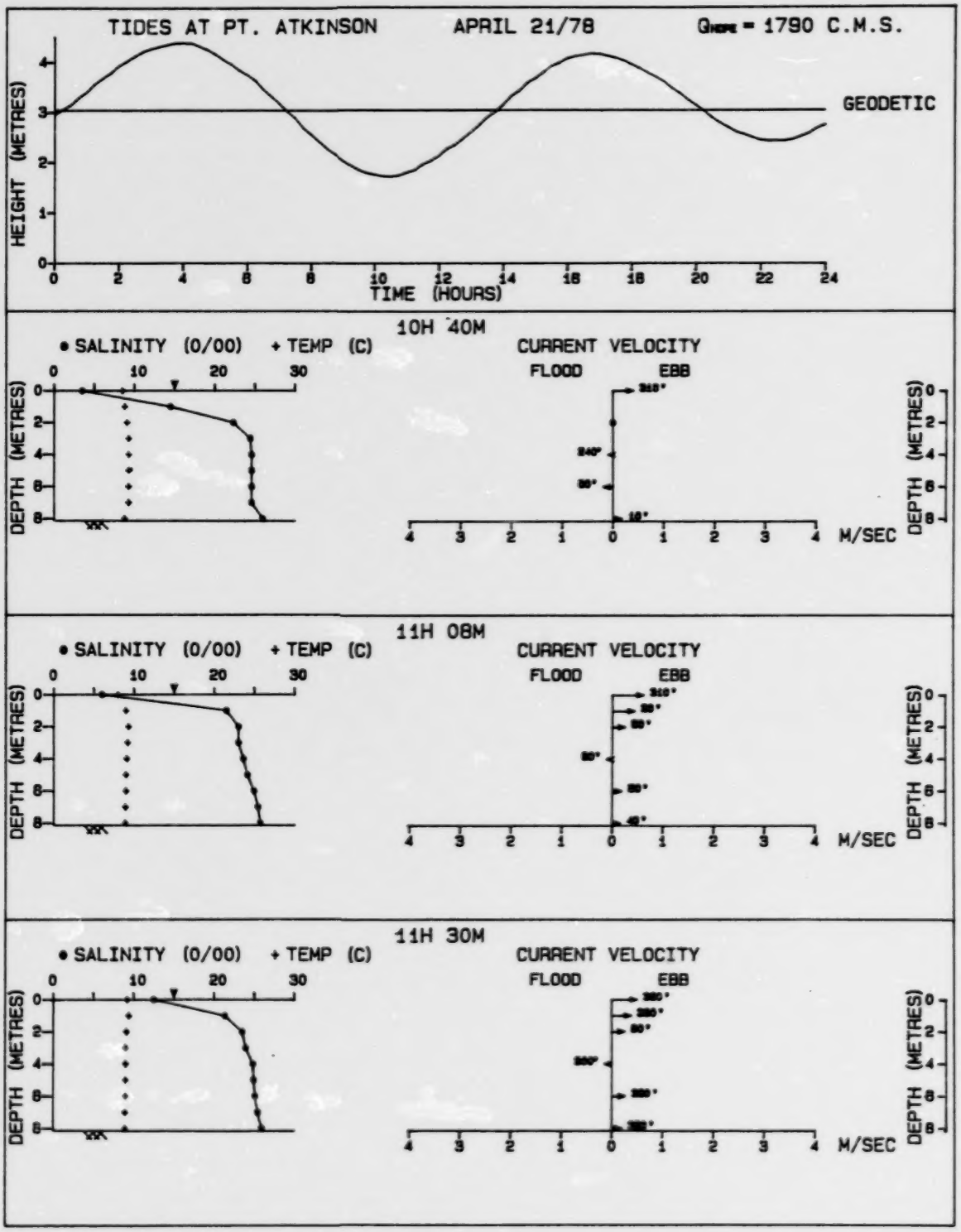
TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
10H 40M	0.0	3.50	8.5	0.40		310
	1.0	14.50	8.8			
	2.0	22.30	9.1	0.00		000
	3.0	24.40	9.3			
	4.0	24.60	9.3	0.09	240	
	5.0	24.60	9.3			
	6.0	24.60	9.3	0.18	090	
	7.0	24.60	9.3			
	8.0	26.00	8.8	0.17		010
11H 08M	0.0	6.00	8.0	0.61		310
	1.0	21.50	9.0	0.43		020
	2.0	23.00	9.3	0.24		050
	3.0	23.00	9.2			
	4.0	23.60	9.1	0.10	080	
	5.0	24.10	9.0			
	6.0	24.90	9.0	0.18		050
	7.0	25.40	8.9			
	8.0	25.70	8.9	0.15		040
11H 30M	0.0	12.50	9.2	0.50		320
	1.0	21.30	9.4	0.38		330
	2.0	23.50	9.1	0.25		060
	3.0	23.90	9.0			
	4.0	24.80	9.0	0.13	200	
	5.0	24.90	9.0			
	6.0	25.10	9.0	0.26		320
	7.0	25.40	8.9			
	8.0	25.90	8.9	0.19		320
12H 00M	0.0	99.99	9.7	0.52		330
	1.0	18.00	9.2	0.39		350
	2.0	24.30	9.1	0.13	090	
	3.0	24.50	9.1			
	4.0	24.80	9.1	0.09		290
	5.0	24.90	9.0			
	6.0	25.40	9.0	0.14		310
	7.0	25.50	8.9			
	8.0	25.50	8.9	0.16		290
12H 50M	0.0	2.50	9.7	0.33		060
	1.0	99.99	9.7	0.36	090	
	2.0	22.00	9.6	0.25	140	
	3.0	22.30	9.3			
	4.0	23.20	9.3	0.18	140	
	5.0	23.80	9.2			
	6.0	24.20	9.2	0.09	070	

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT ENTR. N-ARM

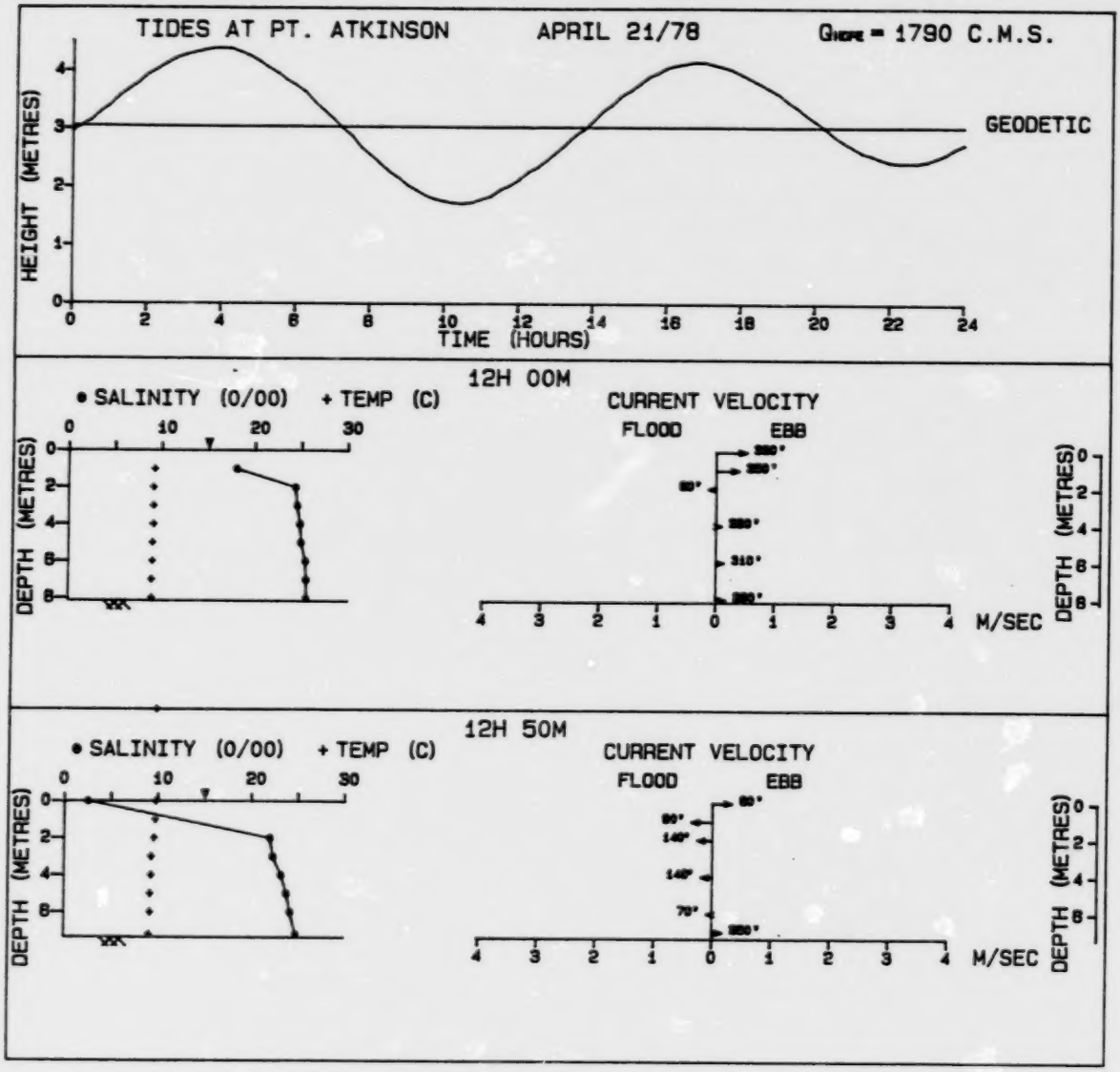
APRIL 21/78 RIVER DISCHARGE AT HOPE = 1790 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
12H 50M	7.0			0.17		250
	7.2	24.80	9.1			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT ENTR. N-ARM



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT ENTR. N-ARM



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JUNE 5-6/78 RIVER DISCHARGE AT HOPE = 5790 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
10H 30M	0.0			0.91		310
	1.5			0.61		310
	3.1			0.61		310
	4.6			0.61		310
	6.1			0.61		330
11H 00M	0.0			0.93		320
	3.1			0.61		310
	6.1			0.68		270
11H 30M	0.0			0.82		270
	1.5			0.63		280
	3.1			0.61		360
	6.1			0.63		270
12H 00M	0.0			0.87		290
	3.1			1.10		350
	6.1			0.61		340
12H 30M	0.0			0.34		340
	3.1			0.63		300
	6.1			0.81		350
13H 00M	0.0			0.34		290
	3.1			0.98		260
	6.1			0.63		250
13H 30M	0.0			0.98		280
	3.1			0.56		230
	6.1			0.67		270
14H 00M	0.0			1.16		230
	3.1			0.87		300
	6.1			0.87		340
14H 30M	0.0			0.70		310
	3.1			0.31		***
	6.1			0.66		330
15H 00M	0.0			0.44		290
	1.5			0.36		280
	3.1			0.36		300
	4.6			0.25		280
	6.1			0.19		250
	7.6			0.22		290
	9.2			0.41	200	

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JUNE 5-6/78 RIVER DISCHARGE AT HOPE = 5790 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
15H 30M	0.0	0.00	9.6	0.24		290
	1.0	0.00	9.4			
	1.5			0.14		300
	2.0	0.00	9.4			
	3.0	0.00	9.4	0.15		290
	4.0	0.00	9.4			
	4.5			0.11		300
	5.0	0.00	9.4			
	6.0	0.00	9.4	0.09		280
	7.0	0.00	9.4	0.11		280
	7.7	0.00	9.4	0.04		290
16H 05M	0.0	0.00	9.7	0.03		330
	1.0	0.00	9.6			
	1.5			0.09	070	
	2.0	0.00	9.4			
	3.0	0.00	9.4			
	3.1			0.07	050	
	4.0	0.00	9.4			
	4.6			0.03		010
	5.0	0.00	9.4			
	6.0	0.00	9.4			
	6.3			0.06	100	
	7.0	0.00	9.4			
	8.0	0.00	9.4	0.00		000
16H 30M	0.0			0.34	090	
	1.5			0.26	170	
	3.1			0.22	080	
	4.6			0.09	120	
	6.1			0.11	090	
	7.6			0.09	170	
	8.2			0.18	080	
17H 05M	0.0	0.00	9.7	0.00		000
	1.0	0.00	9.5			
	1.5			0.34	070	
	2.0	0.00	9.5			
	3.0	0.00	9.5			
	3.1			0.44		240
	4.0	0.00	9.4			
	4.6			0.27	060	
	5.0	0.00	9.4			
	6.0	0.00	9.4			
	6.1			0.09		260
	7.0	0.00	9.4			
	7.4			0.06	210	

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JUNE 5-6/78 RIVER DISCHARGE AT HOPE = 5790 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
17H 05M	8.0	0.00	9.3	0.12		020
17H 30M	0.0	0.00	9.6	0.06	190	
	1.0	0.00	9.5			
	1.5			0.25	180	
	2.0	0.00	9.4			
	3.0	0.00	9.4			
	3.1			0.14		300
	4.0	0.00	9.4			
	4.6			0.06	180	
	5.0	0.00	9.3			
	6.0	0.50	9.2			
	6.1			0.39	060	
	7.0	1.50	9.0			
	7.4			0.25		020
	8.0	5.80	8.7	0.25	190	
18H 00M	0.0	0.00	10.0	0.09	200	
	1.0	0.00	9.5			
	1.5			0.14		330
	2.0	0.00	9.4			
	3.0	0.00	9.4			
	3.1			0.22		270
	4.0	0.00	9.3			
	4.6			0.23		270
	5.0	0.10	9.1			
	6.0	3.50	8.6			
	6.1			0.27		270
	7.0	7.30	8.0			
	7.6			0.25		230
	8.0	16.80	7.5			
	8.7	16.80	7.5	0.14		220
18H 30M	0.0	0.00	9.5	0.31		270
	1.0	0.00	9.5			
	1.5			0.28		290
	2.0	0.00	9.4			
	3.0	0.00	9.4			
	3.1			0.39	060	
	4.0	0.00	9.3			
	4.6			0.41		300
	5.0	2.00	9.0			
	6.0	6.20	8.5			
	6.1			0.27		250
	7.0	18.00	7.4			
	7.6			0.19		240
	8.0	23.30	6.7			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JUNE 5-6/78 RIVER DISCHARGE AT HOPE = 5790 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
18H 30M	9.0	24.20	6.7	0.26	170	
19H 00M	0.0	0.00	9.8	0.56		280
	1.0	0.00	9.5			
	1.5			0.86		310
	2.0	0.00	9.5			
	3.0	0.00	9.4			
	3.1			0.61		270
	4.0	0.20	9.2			
	4.6			0.49		270
	5.0	3.00	8.9			
	6.0	4.60	8.5			
	6.1			0.61		240
	7.0	12.70	7.1			
	7.6			0.31		260
	8.0	22.50	6.7			
	8.8	23.30	6.7	0.06		260
19H 30M	0.0	0.00	9.6	0.60		280
	1.0	0.00	9.6			
	1.5			0.85		290
	2.0	0.00	9.5			
	3.0	0.20	9.4			
	3.1			0.84		260
	4.0	0.80	9.2			
	4.6			0.81		300
	5.0	2.40	9.1			
	6.0	5.00	8.8			
	6.1			0.56		300
	7.0	5.80	8.0			
	7.6			0.34		290
	8.0	21.20	6.7			
	9.0	23.60	6.7	0.33		270
20H 00M	0.0	0.00	9.5	1.06		240
	1.0	0.00	9.5			
	1.5			1.01		290
	2.0	0.00	9.5			
	3.0	0.60	9.2			
	3.1			0.92		280
	4.0	3.50	9.0			
	4.6			0.98		290
	5.0	4.00	8.9			
	6.0	5.20	8.5			
	6.1			0.63		300
	7.0	7.30	7.2			
	7.6			0.49		290

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JUNE 5-6/78 RIVER DISCHARGE AT HOPE = 5790 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
20H 00M	8.0	19.60	6.7			
	8.5	24.00	6.7	0.58		230
20H 30M	0.0	0.00	9.5	0.86		250
	1.0	0.00	9.5			
	1.5			0.89		290
	2.0	0.00	9.5			
	3.0	0.00	9.4			
	3.1			0.83		290
	4.0	1.00	9.1			
	4.6			0.83		280
	5.0	3.20	8.6			
	6.0	7.00	8.4			
	6.1			0.74		270
	7.0	8.20	7.2			
	7.6			0.48		300
	8.4	25.00	7.0			
21H 00M	0.0	0.00	9.5	1.11		240
	1.0	0.00	9.6			
	1.5			0.93		280
	2.0	0.10	9.6			
	3.0	0.20	9.5			
	3.1			1.05		260
	4.0	0.30	9.3			
	4.6			0.99		280
	5.0	1.50	8.6			
	6.0	9.10	8.1			
	7.0	15.00	7.3			
	8.0	25.00	7.0			
	8.5	25.40	7.0			
21H 30M	0.0	0.00	9.5	1.38		260
	1.0	0.10	9.5			
	1.5			1.22		270
	2.0	0.20	9.5			
	3.0	0.30	9.5			
	3.1			1.23		270
	4.0	0.50	8.7			
	4.6			1.38		270
	5.0	5.00	8.3			
	6.0	10.30	7.4			
	6.1			0.96		280
	7.0	13.10	7.0			
	7.6			1.29		300
	8.2	26.40	7.0			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JUNE 5-6/78 RIVER DISCHARGE AT HOPE = 5790 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
22H 00M	0.0	0.00	9.5	1.00		280
	1.0	0.10	9.6			
	1.5			1.46		270
	2.0	0.30	9.6			
	3.0	0.50	9.5			
	3.1			1.30		260
	4.0	0.70	9.1			
	4.6			1.20		280
	5.0	5.90	8.4			
	6.0	9.00	7.8			
	6.1			0.91		290
	7.0	16.40	7.5			
	7.6			0.91		310
	8.0	23.20	7.1			
22H 30M	0.0	0.00	9.5	0.66		290
	1.0	0.10	9.5			
	1.5			0.37		300
	2.0	0.40	9.5			
	3.0	0.70	9.3			
	3.1			1.01		260
	4.0	1.50	8.9			
	4.6			0.88		280
	5.0	4.00	8.6			
	6.0	5.50	8.1			
	6.1			0.95		290
	7.2	18.00	7.5	1.20		280
23H 00M	0.0	0.20	9.5	0.49		350
	1.0	0.40	9.5			
	1.5			0.91		***
	2.0	0.60	9.5			
	3.0	0.70	9.5			
	3.1			1.34		310
	4.0	1.70	9.3			
	4.6			1.16		320
	5.0	3.60	9.0			
	6.0	5.00	8.7			
	6.1			0.73		340
	7.0	14.20	7.9			
	7.2			0.25		350
	7.7	16.70	7.5			
23H 30M	0.0	0.40	9.4	1.25		270
	1.0	0.50	9.4			
	1.5			1.17		300
	2.0	0.50	9.4			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JUNE 5-6/78 RIVER DISCHARGE AT HOPE = 5790 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
23H 30M	3.0	1.00	9.3			
	3.1			1.08		290
	4.0	2.50	9.2			
	4.6			1.10		320
	5.0	2.80	9.0			
	6.0	4.20	8.6			
	6.1			1.17		310
	7.0	6.00	8.3			
	7.6			0.71		310
	7.8	14.50	7.8			
00H 00M	0.0	0.40	9.5	1.10		270
	1.0	0.50	9.5			
	1.5			1.04		280
	2.0	0.60	9.5			
	3.0	1.60	9.4			
	3.1			1.05		280
	4.0	2.00	9.3			
	4.6			0.92		290
	5.0	2.70	9.2			
	6.0	3.30	9.1			
	6.1			0.86		280
	7.0	12.00	8.5			
	7.6			0.68		260
	7.9	13.50	8.3			
00H 30M	0.0	0.10	9.5	0.87		260
	1.0	0.30	9.5			
	1.5			0.89		270
	2.0	0.40	9.4			
	3.0	0.80	9.4			
	3.1			0.80		280
	4.0	1.40	9.3			
	4.6			0.96		250
	5.0	2.20	9.2			
	6.0	3.00	8.8			
	6.1			0.71		270
	7.0	6.70	8.5			
	7.6	10.60	8.2	0.65		250
01H 00M	0.0	0.00	9.5	0.81		270
	1.0	0.00	9.5			
	1.5			0.86		280
	2.0	0.70	9.4			
	3.0	0.70	9.4			
	3.1			0.75		280
	4.0	1.20	9.4			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JUNE 5-6/78 RIVER DISCHARGE AT HOPE = 5790 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
01H 00M	4.6			0.67		300
	5.0	1.80	9.3			
	6.0	3.10	8.9			
	6.1			0.56		280
	7.0	6.80	8.9	0.41		270
	7.6	7.50	8.9	0.17		330
01H 30M	0.0	0.00	9.6	0.55		280
	1.0	0.00	9.6			
	1.5			0.55		280
	2.0	0.50	9.5			
	3.0	0.80	9.5			
	3.1			0.70		250
	4.0	1.00	9.4			
	4.6			0.43		300
	5.0	1.30	9.4			
	6.0	2.20	9.2			
	6.1			0.37		280
	7.0	5.10	9.0			
	7.5			0.30		280
	8.0	7.70	8.8	0.27		220
02H 00M	0.0	0.00	9.5	0.49		270
	1.0	0.00	9.5			
	1.5			0.58		270
	2.0	0.10	9.5			
	3.0	0.50	9.5			
	3.1			0.50		280
	4.0	0.70	9.5			
	4.6			0.44		280
	5.0	0.80	9.5			
	6.0	1.10	9.4			
	6.1			0.37		280
	7.0	2.10	9.2			
	7.6			0.09		250
	8.2	8.00	8.9	0.22		320
03H 00M	0.0	0.00	9.6	0.43		290
	1.0	0.00	9.6			
	1.5			0.27		270
	2.0	0.00	9.6			
	3.0	0.10	9.6			
	3.1			0.58		310
	4.0	0.20	9.5			
	4.6			0.37		300
	5.0	0.80	9.4			
	6.0	1.50	9.3			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JUNE 5-6/78 RIVER DISCHARGE AT HOPE = 5790 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
03H 00M	6.1			0.43		280
	7.0	2.50	9.2			
	7.6			0.49		260
	8.2	6.30	8.9	0.36		260
03H 30M	0.0	0.00	9.6	0.58		280
	1.0	0.00	9.6			
	1.5			0.58		240
	2.0	0.00	9.6			
	3.0	0.00	9.6			
	3.1			0.31		270
	4.0	0.00	9.6			
	4.6			0.61		280
	5.0	0.10	9.5			
	6.0	0.80	9.3			
	6.1			0.64		280
	7.0	3.00	8.9			
	7.6			0.48		240
	8.0	6.80	8.8			
	8.5	7.20	8.8	0.74		350
04H 00M	0.0	0.00	9.2	0.68		300
	1.0	0.00	9.6			
	1.5			0.55		290
	2.0	0.00	9.6			
	3.0	0.00	9.6			
	3.1			0.56		280
	4.0	0.00	9.6			
	4.6			0.66		260
	5.0	0.30	9.6			
	6.0	2.00	9.5			
	6.1			0.62		280
	7.0	2.80				
	7.6			0.65		250
	8.0	6.80				
	8.6	19.50		0.09		230
04H 30M	0.0	0.00		0.61		270
	1.0	0.00				
	1.5			0.62		260
	2.0	0.00				
	3.0	0.00				
	3.1			0.55		270
	4.0	0.10				
	4.6			0.86		240
	5.0	0.40				
	6.0	3.20				

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JUNE 5-6/78 RIVER DISCHARGE AT HOPE = 5790 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
04H 30M	6.1			0.78		240
	7.0	4.50				
	7.6			0.63		260
	8.0	19.50	8.5			
	8.4	20.60	8.5	0.48		230
05H 00M	0.0	0.00	9.6	0.75		270
	1.0	0.00	9.6			
	1.5			0.74		260
	2.0	0.00	9.6			
	3.0	0.00	9.6			
	3.1			0.67		280
	4.0	0.10	9.5			
	4.6			0.79		250
	5.0	0.80	9.4			
	6.0	2.50	9.0			
	6.1			0.79		250
	7.0	5.10	8.7			
	7.6			0.78		240
	8.0	15.30	7.3			
	8.5	21.70	7.3	0.49		290
05H 30M	0.0	0.00	9.5	1.01		260
	1.0	0.00	9.5			
	1.5			0.39		330
	2.0	0.00	9.5			
	3.0	0.00	9.5			
	3.3			0.95		270
	4.0	0.30	9.5			
	5.0	2.00	9.3			
	5.4			1.44		250
	6.0	4.00	8.8			
	7.0	9.20	8.5			
	7.2			0.96		260
	8.0	19.00	7.3			
	8.5	22.90	7.3	0.68		270
06H 00M	0.0	0.00	9.4	1.10		280
	1.0	0.00	9.4			
	1.5			1.84		280
	2.0	0.00	9.4			
	3.0	0.00	9.4			
	3.1			1.55		270
	4.0	0.30	9.2			
	4.6			1.22		280
	5.0	3.00	9.1			
	6.0	4.20	8.7			

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JUNE 5-6/78 RIVER DISCHARGE AT HOPE = 5790 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
06H 00M	6.1			0.96		290
	7.0	10.00	8.5			
	8.0	22.50	7.4	0.68		280
06H 30M	0.0	0.00	9.1	0.49		260
	1.0	0.00	9.2			
	1.5			1.22		270
	2.0	0.00	9.2			
	3.0	0.00	9.2			
	3.1			1.22		270
	4.0	0.20	9.2			
	4.6			1.22		280
	5.0	2.30	9.0			
	6.0	5.80	8.8			
	6.1			0.68		280
	7.0	11.80	8.3			
	8.0	14.50	8.0	0.63		270
07H 00M	0.0	0.00	9.2	0.50		310
	1.0	0.00	9.2			
	1.5			1.07		300
	2.0	0.00	9.2			
	3.0	0.20	9.2			
	3.1			0.95		290
	4.0	0.70	9.1			
	4.6			0.52		310
	5.0	2.20	8.8			
	6.0	4.10	8.4			
	6.1			0.48		290
	7.0	7.50	8.2			
	7.8	15.00	7.9	0.61		300
07H 30M	0.0	0.00	9.2	1.07		260
	1.0	0.00	9.2			
	1.5			1.23		280
	2.0	0.00	9.2			
	3.0	0.20	9.1			
	3.1			1.19		280
	4.0	1.00	9.0			
	4.6			1.09		280
	5.0	1.80	8.8			
	6.0	2.80	8.5			
	6.1			0.65		300
	7.0	9.60	8.3			
	7.6	12.90	8.0	0.55		300
08H 00M	0.0	0.00	9.2	1.07		250

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

JUNE 5-6/78 RIVER DISCHARGE AT HOPE = 5790 CU.M/SEC

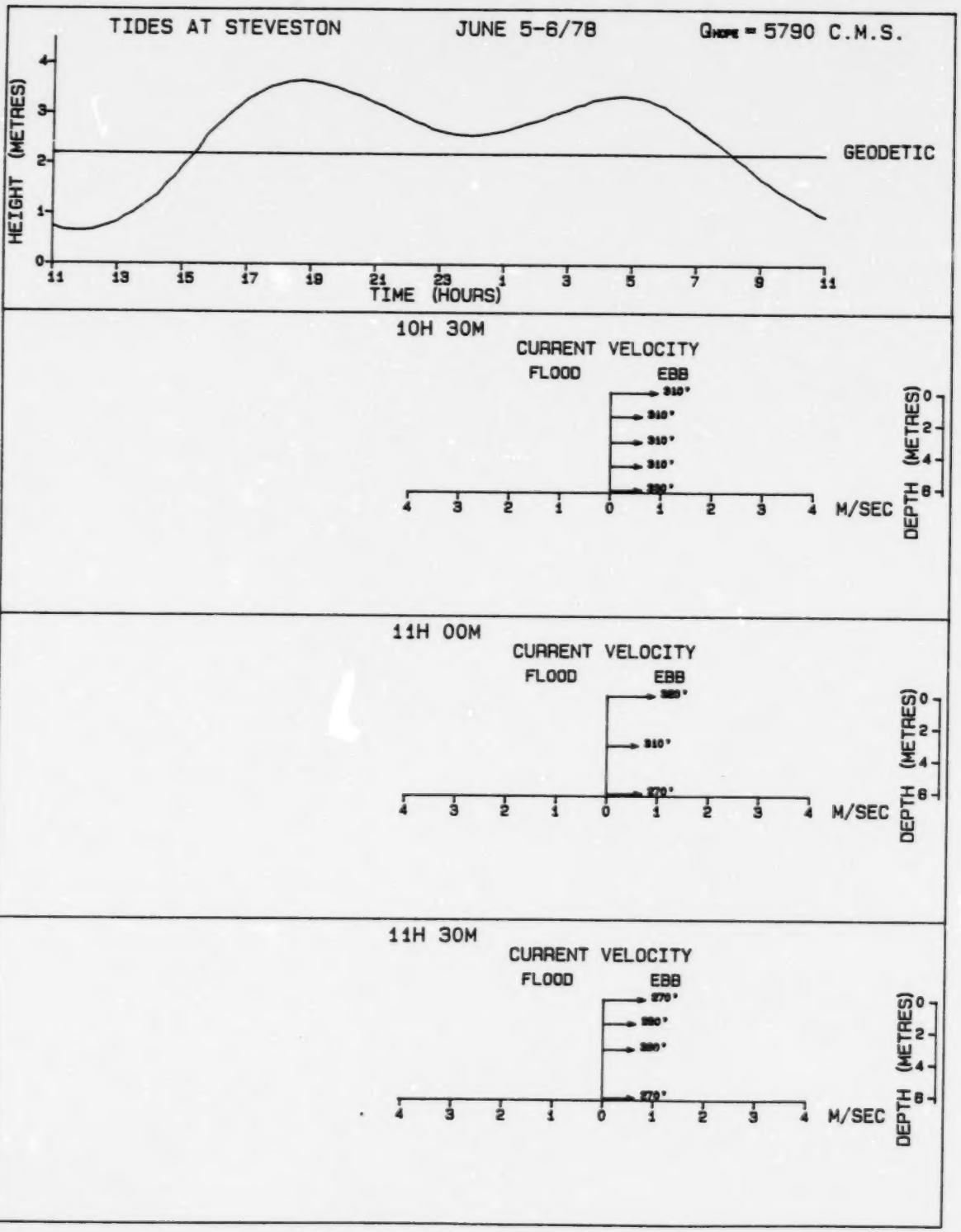
TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
08H 00M	1.0	0.00	9.2			
	1.5			1.04		270
	2.0	0.00	9.1			
	3.0	0.10	9.1			
	3.1			1.08		260
	4.0	0.50	9.1			
	4.6			0.86		290
	5.0	0.60	9.1			
	6.0	0.80	9.1			
	6.1			0.86		250
	7.0	0.90	9.1			
	7.6			0.71		270
	7.8	1.50	9.1			
08H 30M	0.0	0.00	9.1	0.95		250
	1.0	0.00	9.1			
	1.5			1.17		260
	2.0	0.00	9.1			
	3.0	0.00	9.1			
	3.1			1.18		270
	4.0	0.00	9.1			
	4.6			1.02		270
	5.0	0.00	9.1			
	6.0	0.00	9.1			
	6.1			0.98		290
	7.0	0.20	9.1			
	7.5	0.20	9.1	0.98		300
09H 00M	0.0	0.00	9.0	0.56		270
	1.0	0.00	9.0			
	2.0	0.00	9.0			
	3.0	0.00	9.0			
	3.1			1.10		290
	4.0	0.00	9.0			
	5.0	0.00	9.0			
	6.0	0.10	9.0			
	6.1			0.81		290
	7.0	0.10	9.0			
09H 30M	0.0			0.80		260
	3.1			1.20		270
	6.1			0.99		280
10H 05M	0.0			1.01		340
	3.1			1.11		280
	6.1			1.04		250

SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21

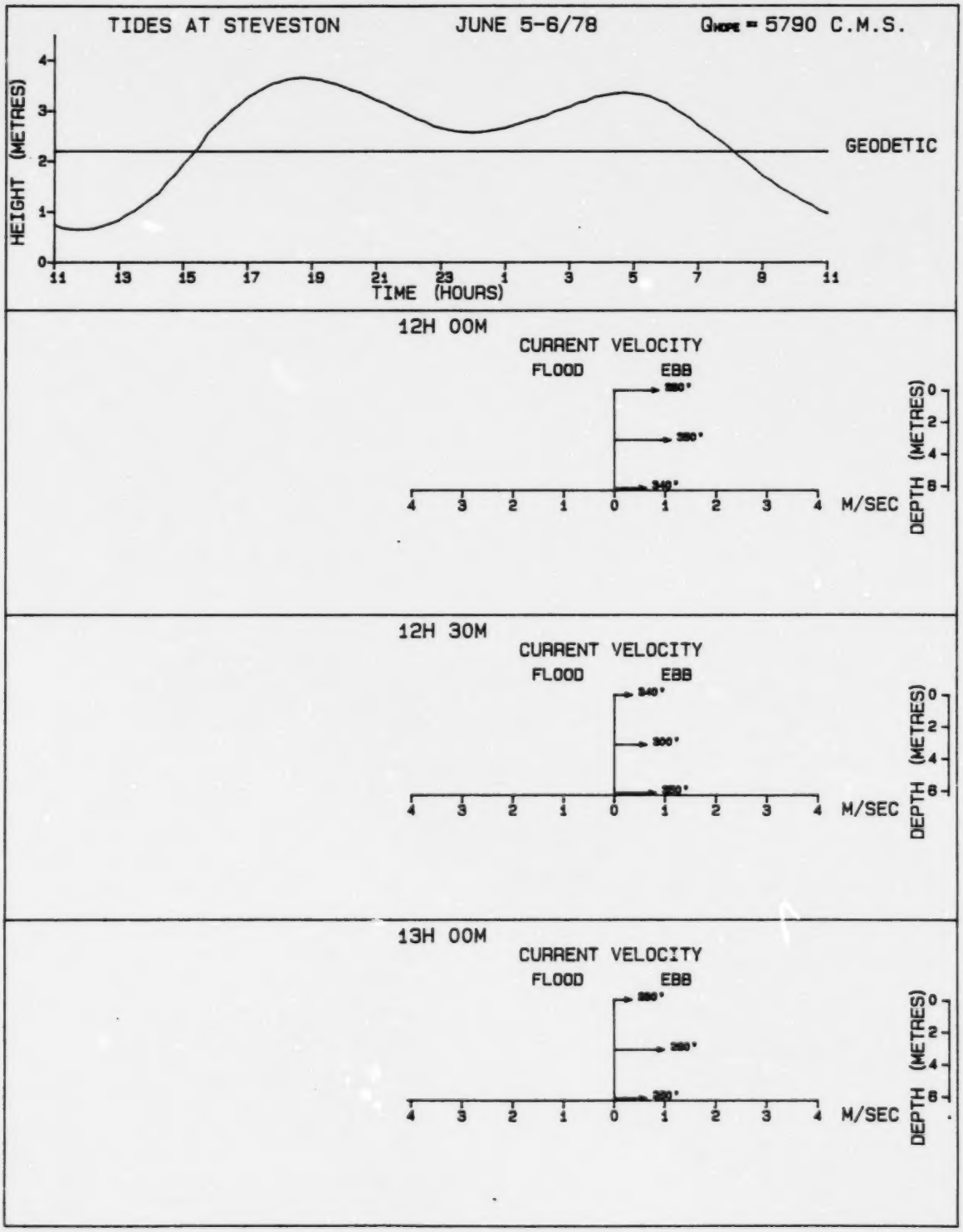
JUNE 5-6/78 RIVER DISCHARGE AT HOPE = 5790 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
10H 30M	0.0			0.52		290
	3.1			0.87		300
	6.1			0.81		300
11H 00M	0.0			0.82		290
	3.1			0.87		310
	6.1			0.81		310
11H 30M	0.0			0.48		250
	3.1			0.89		300
	6.1			0.89		310

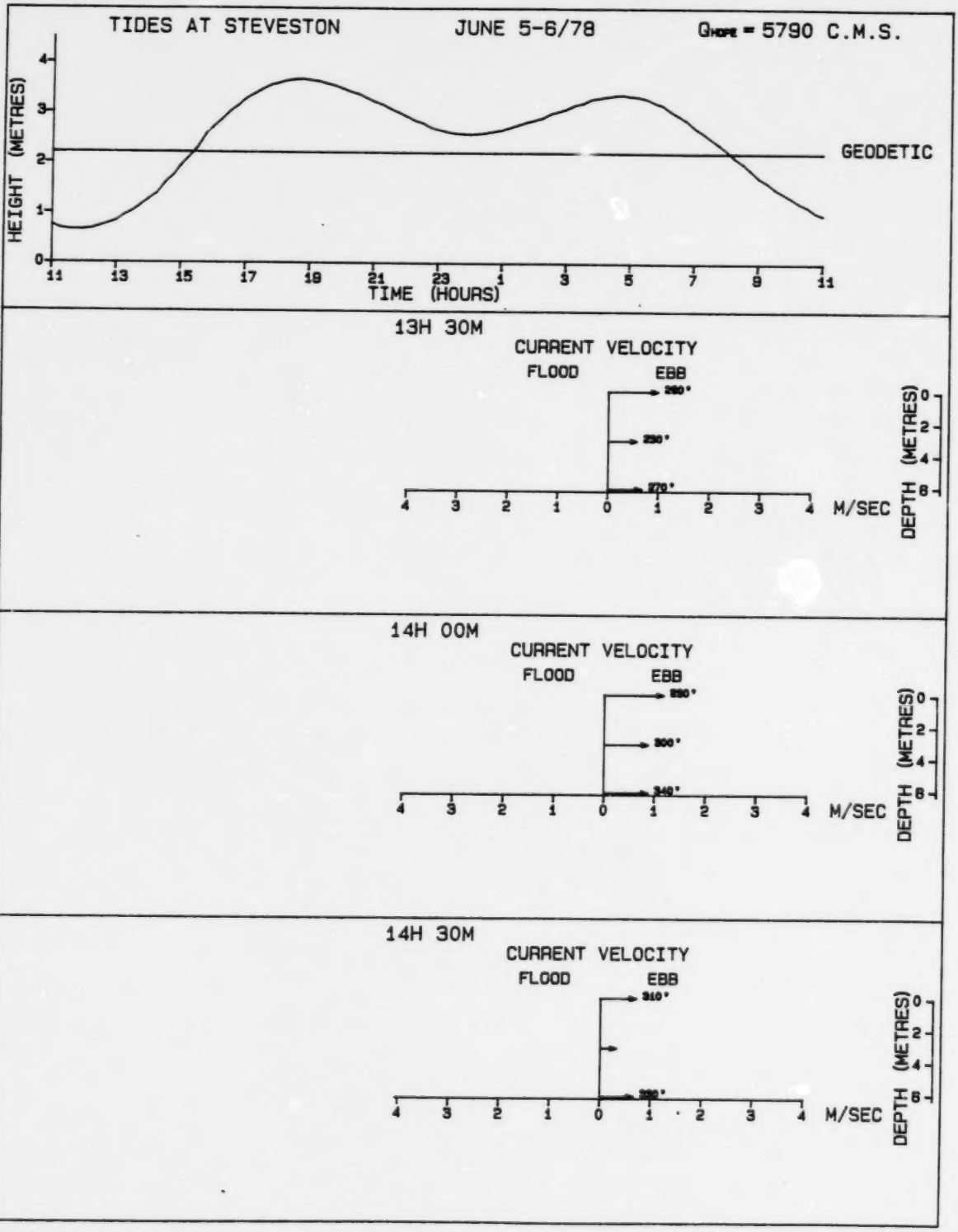
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



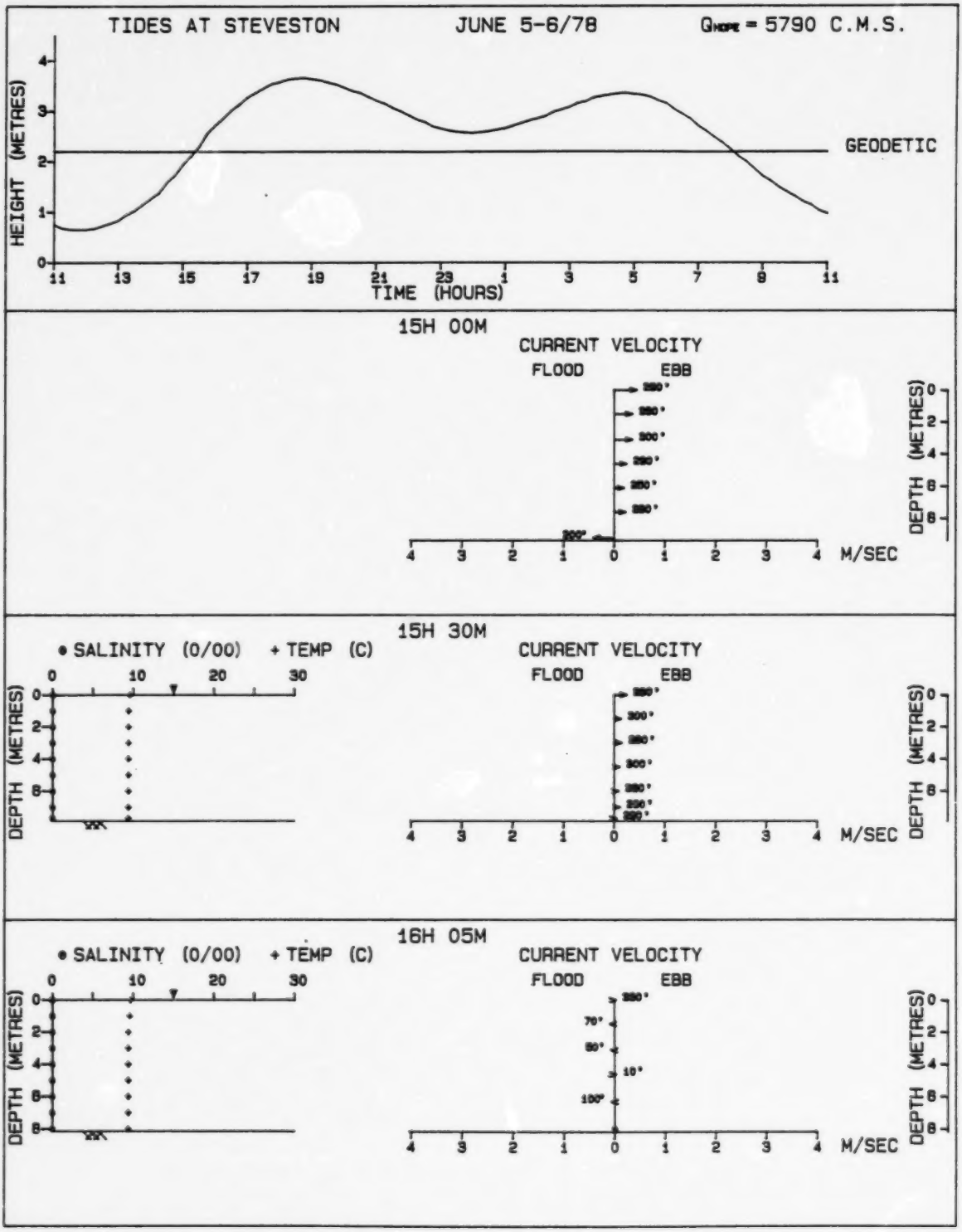
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



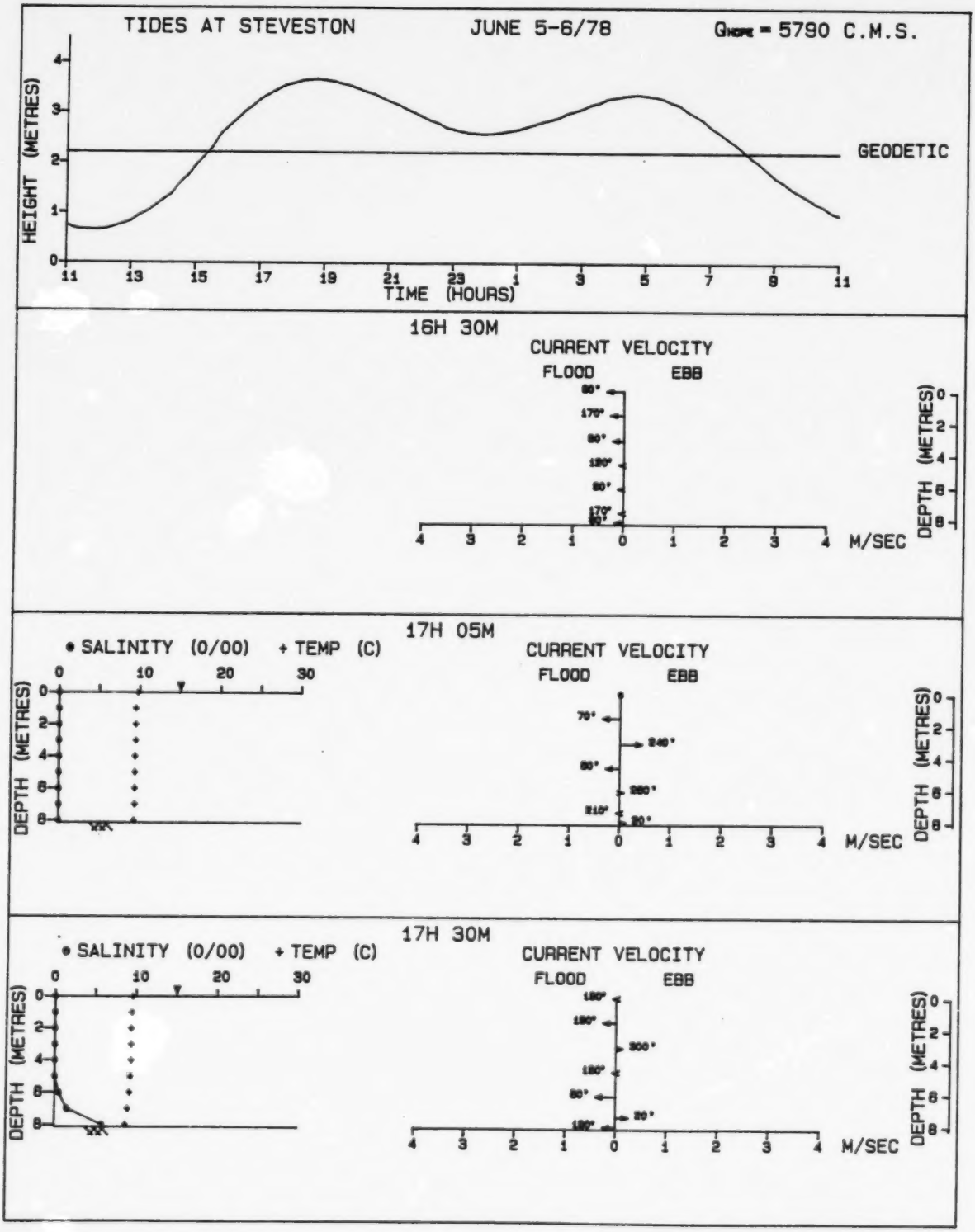
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



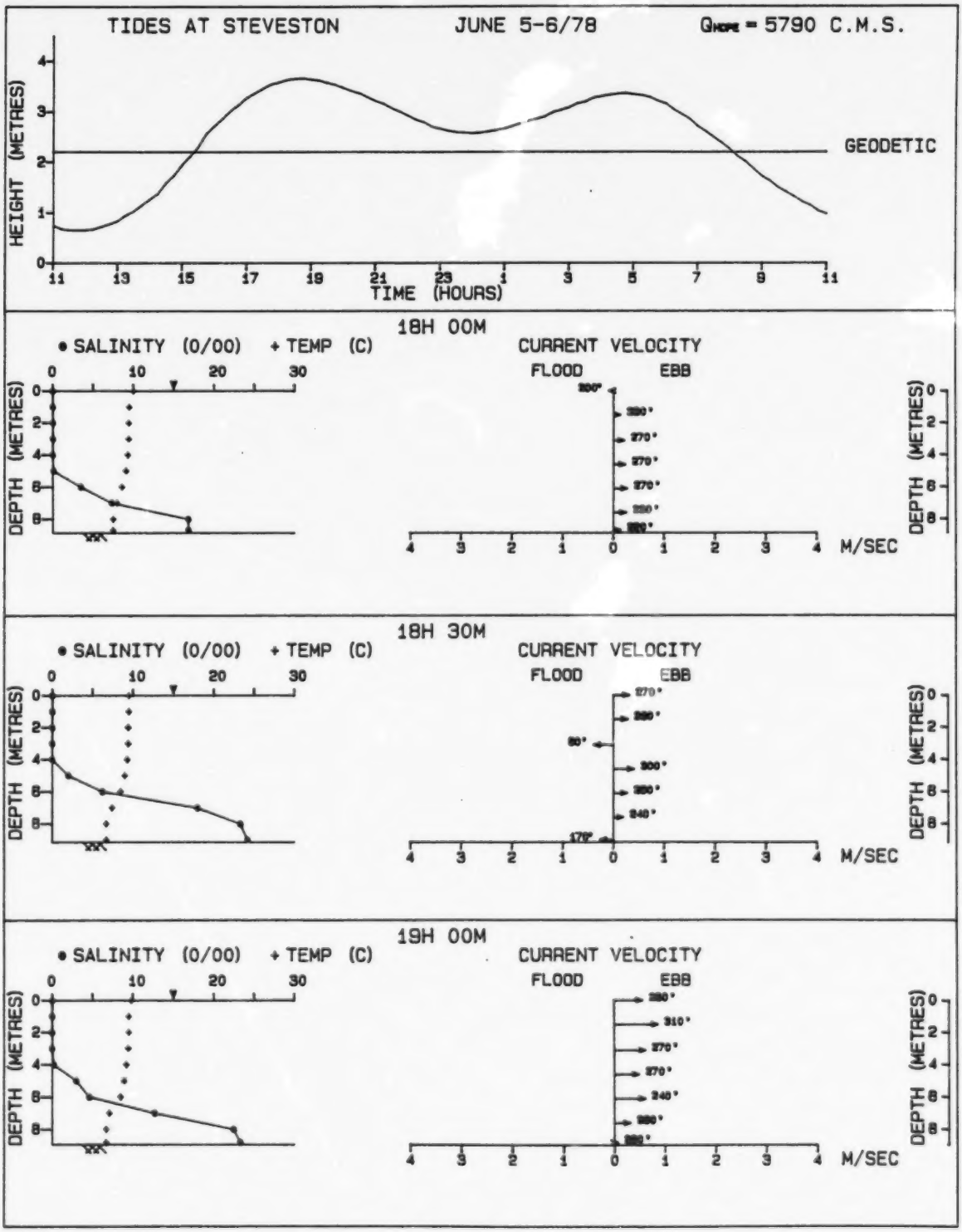
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



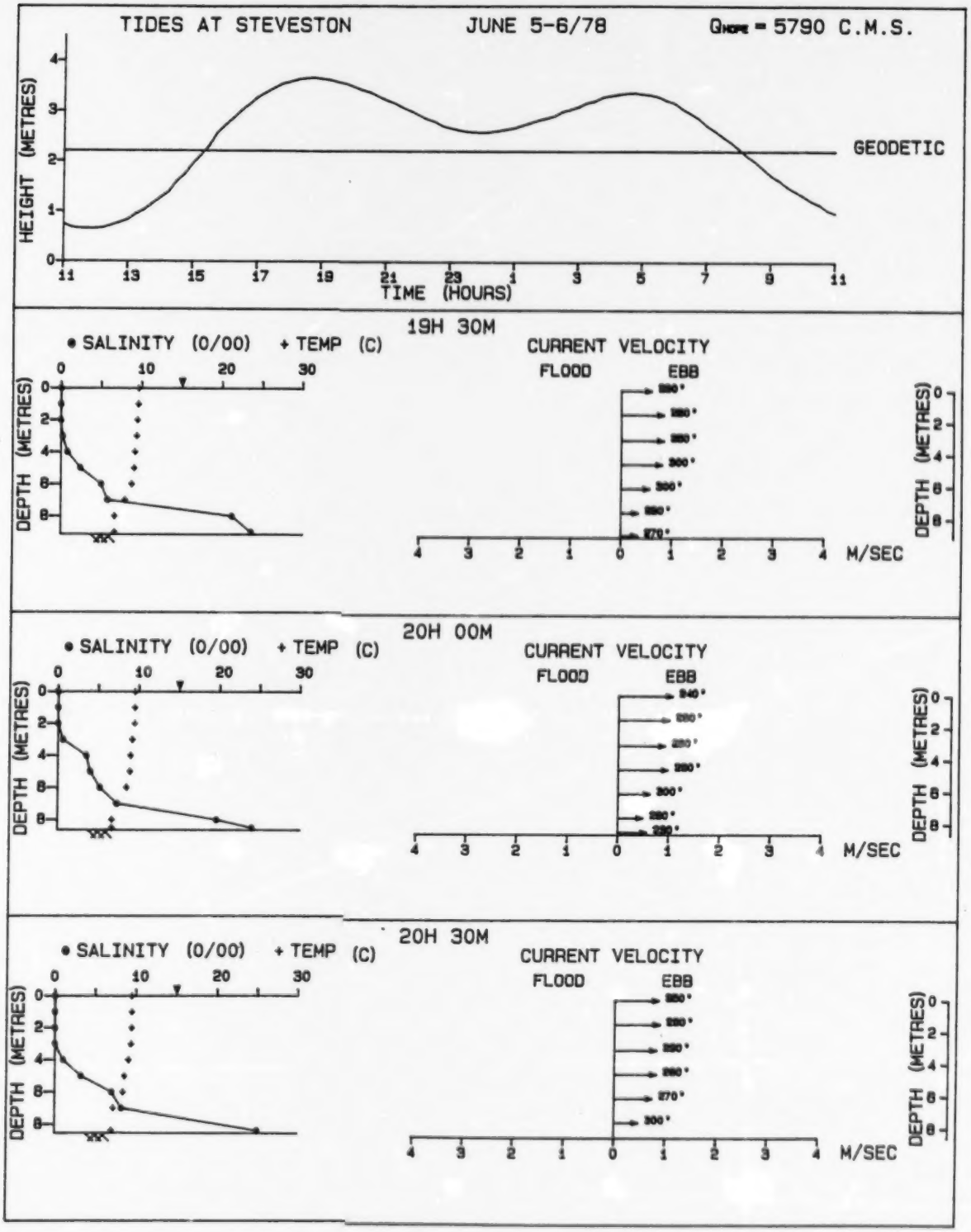
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



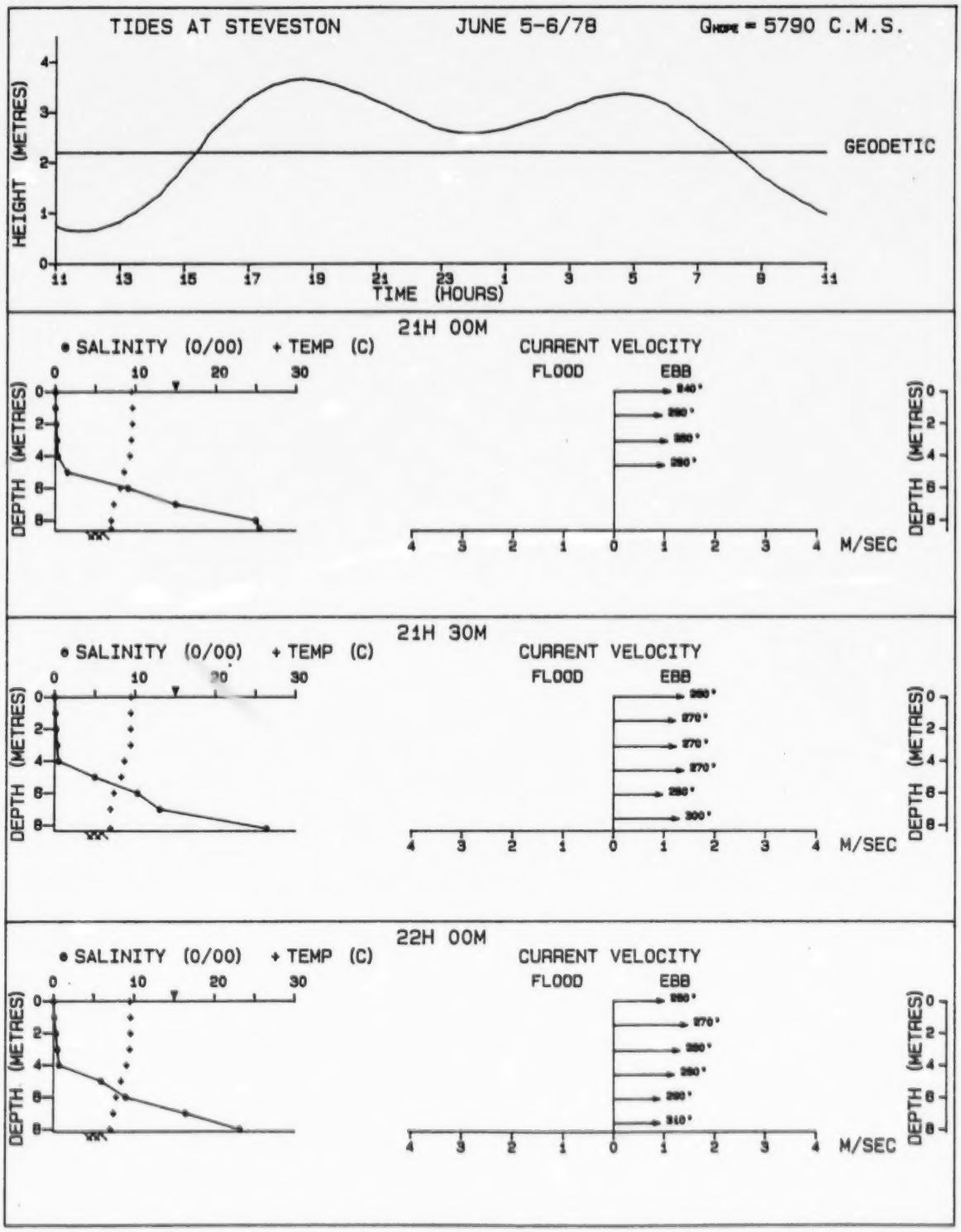
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



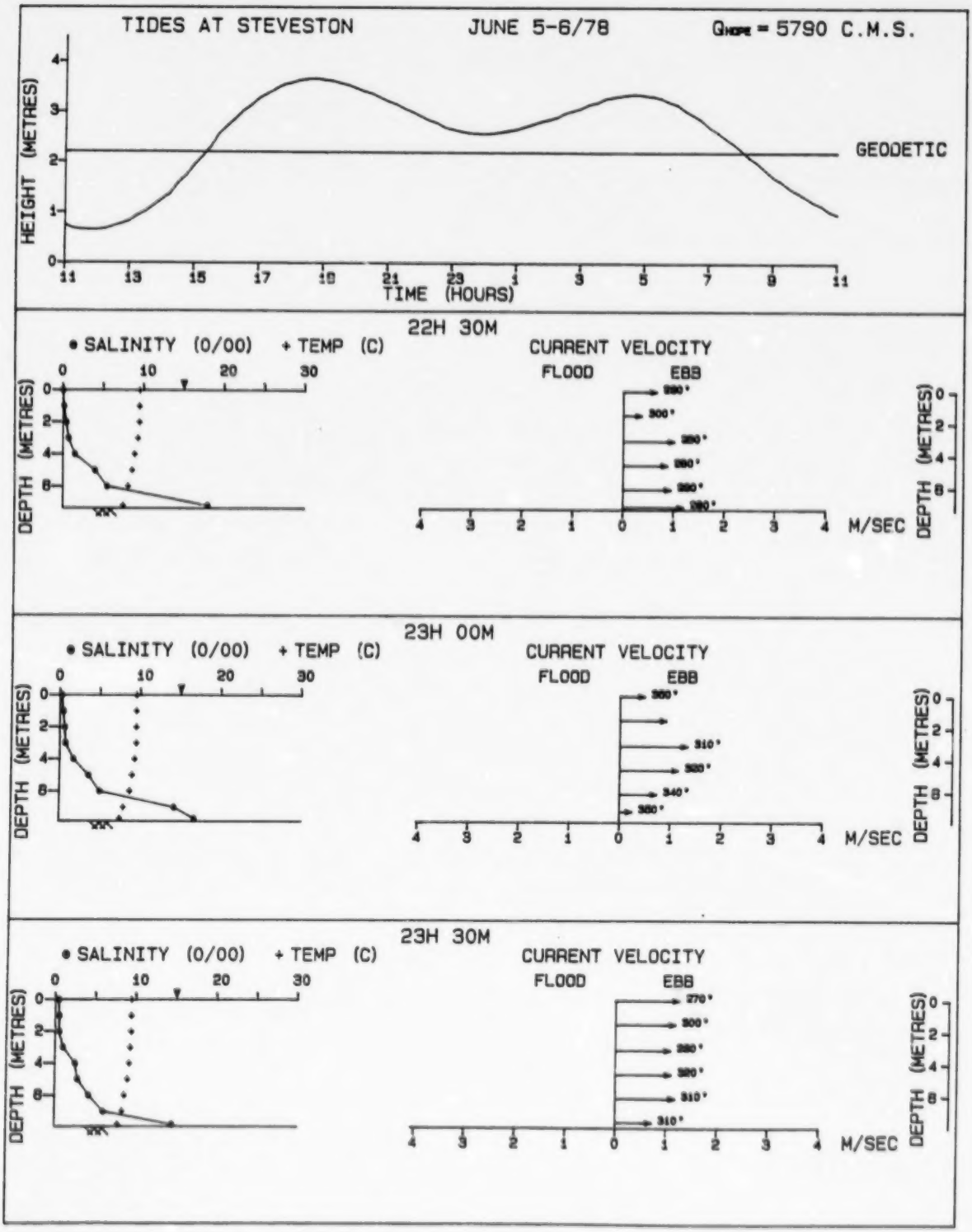
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



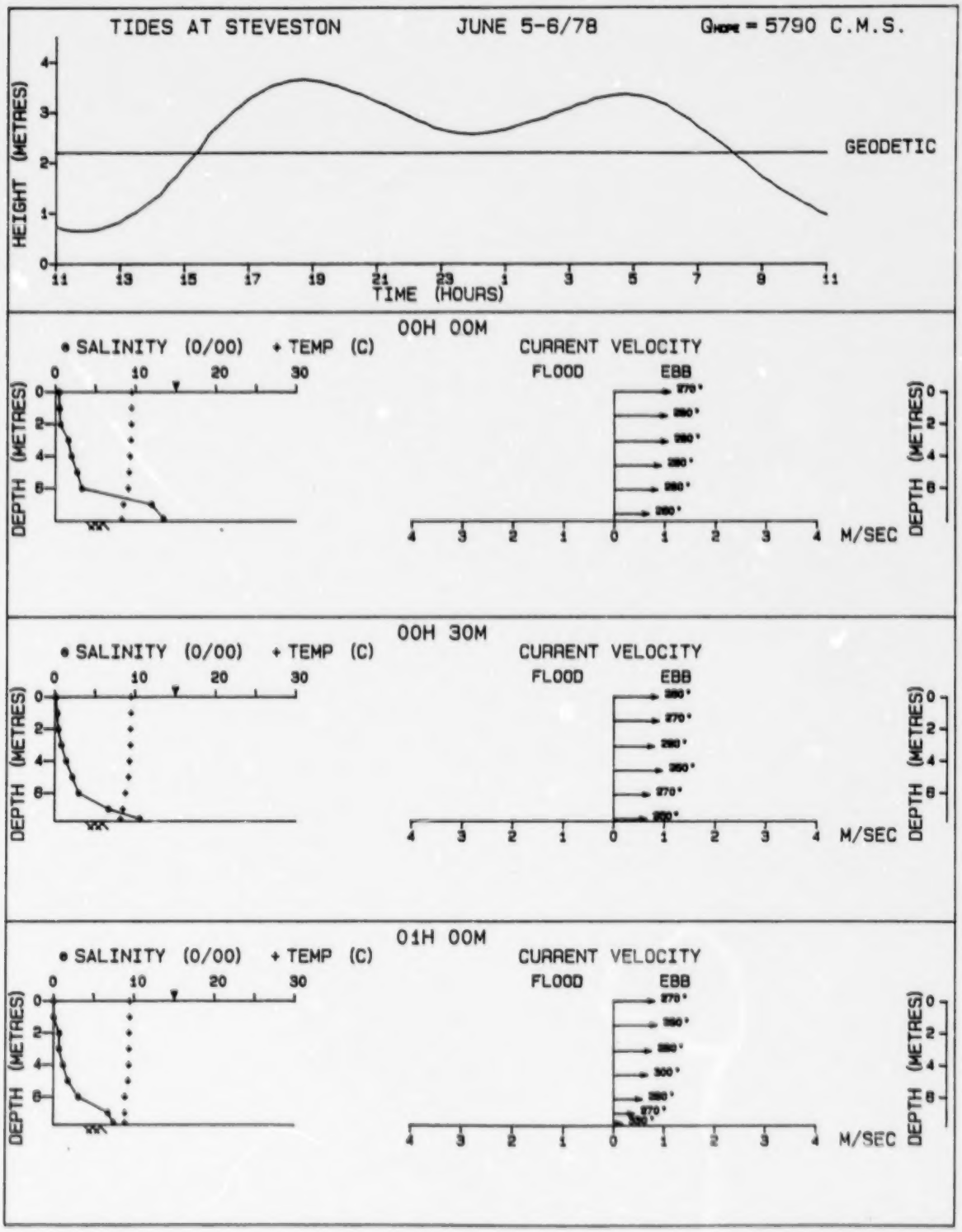
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



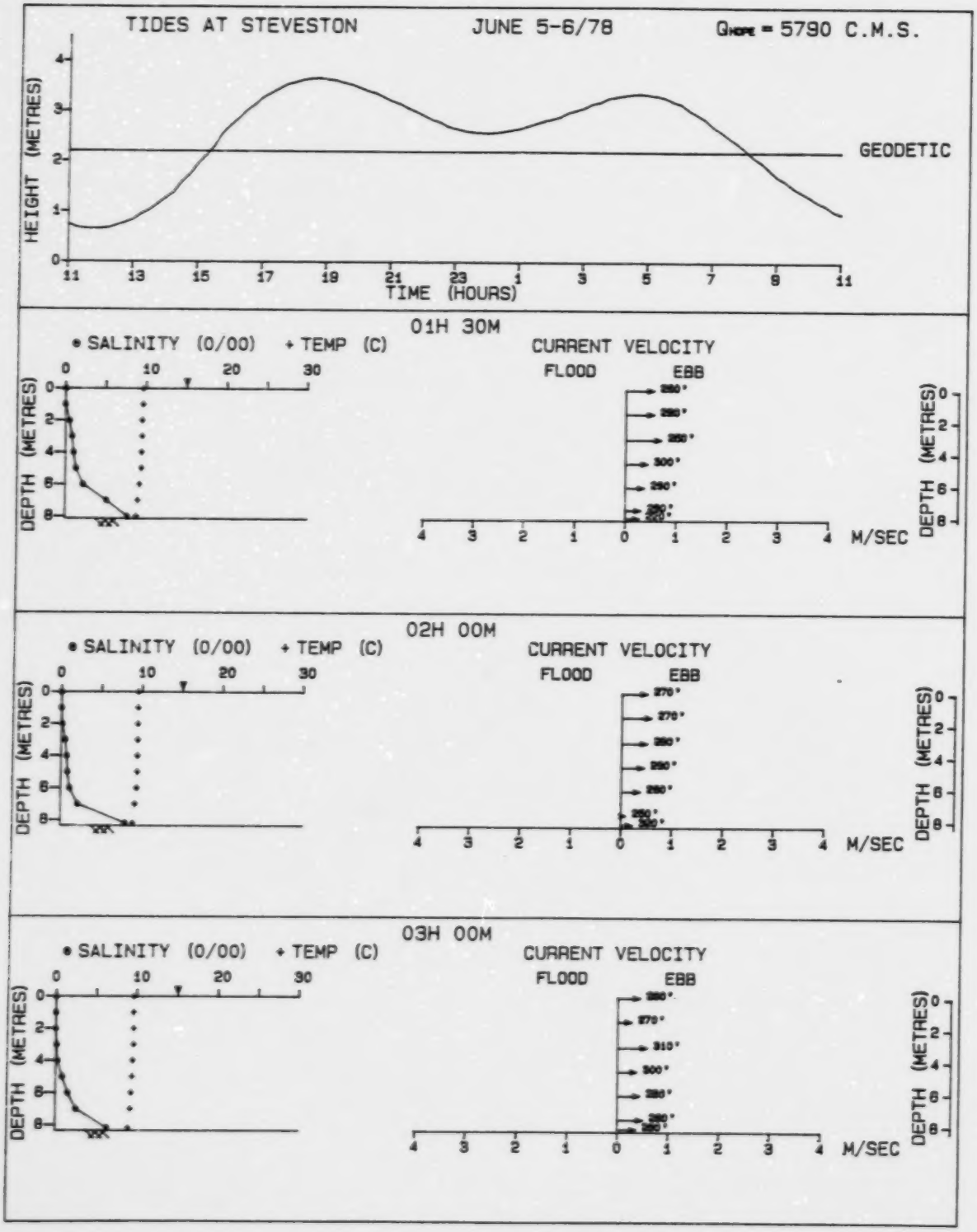
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



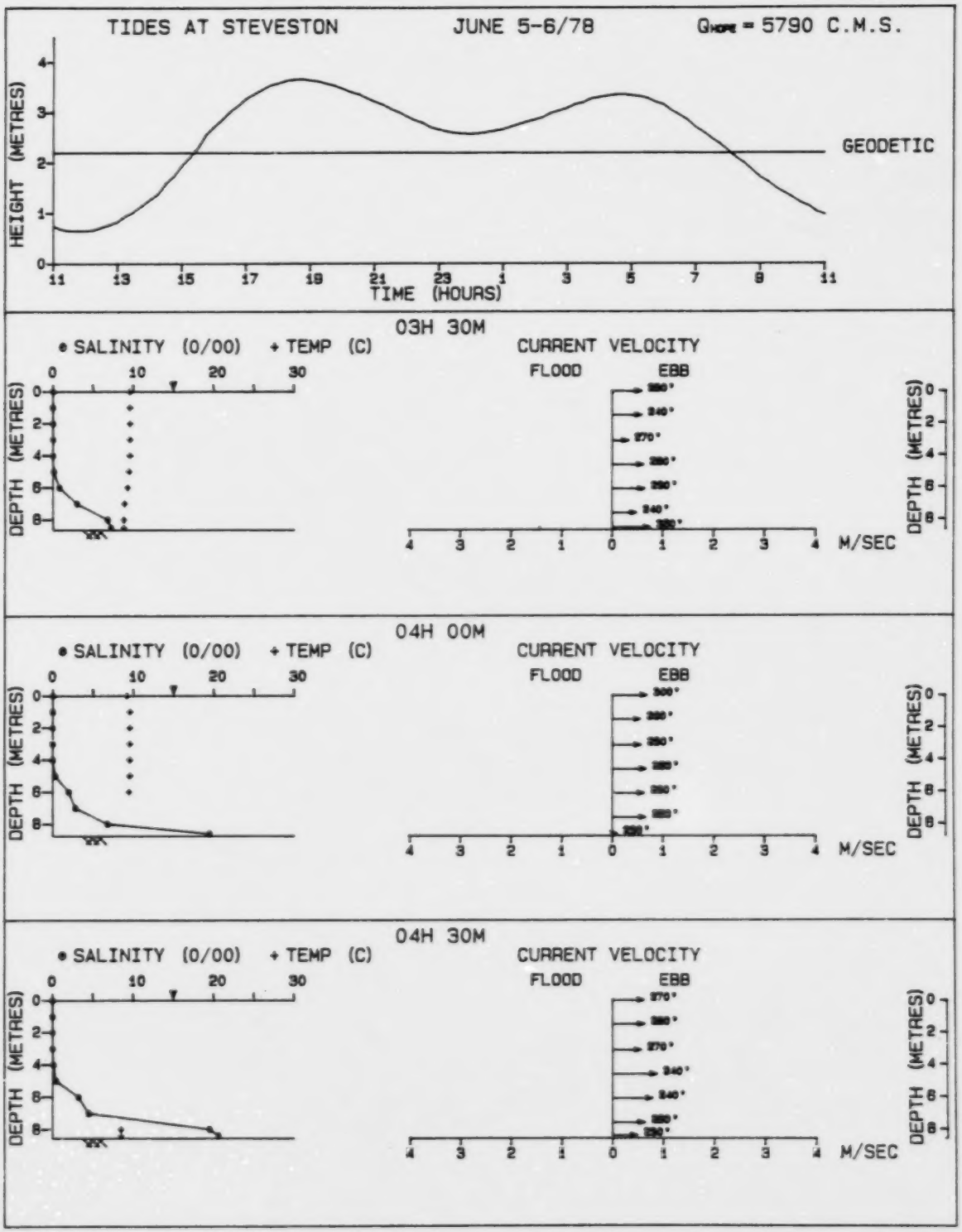
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



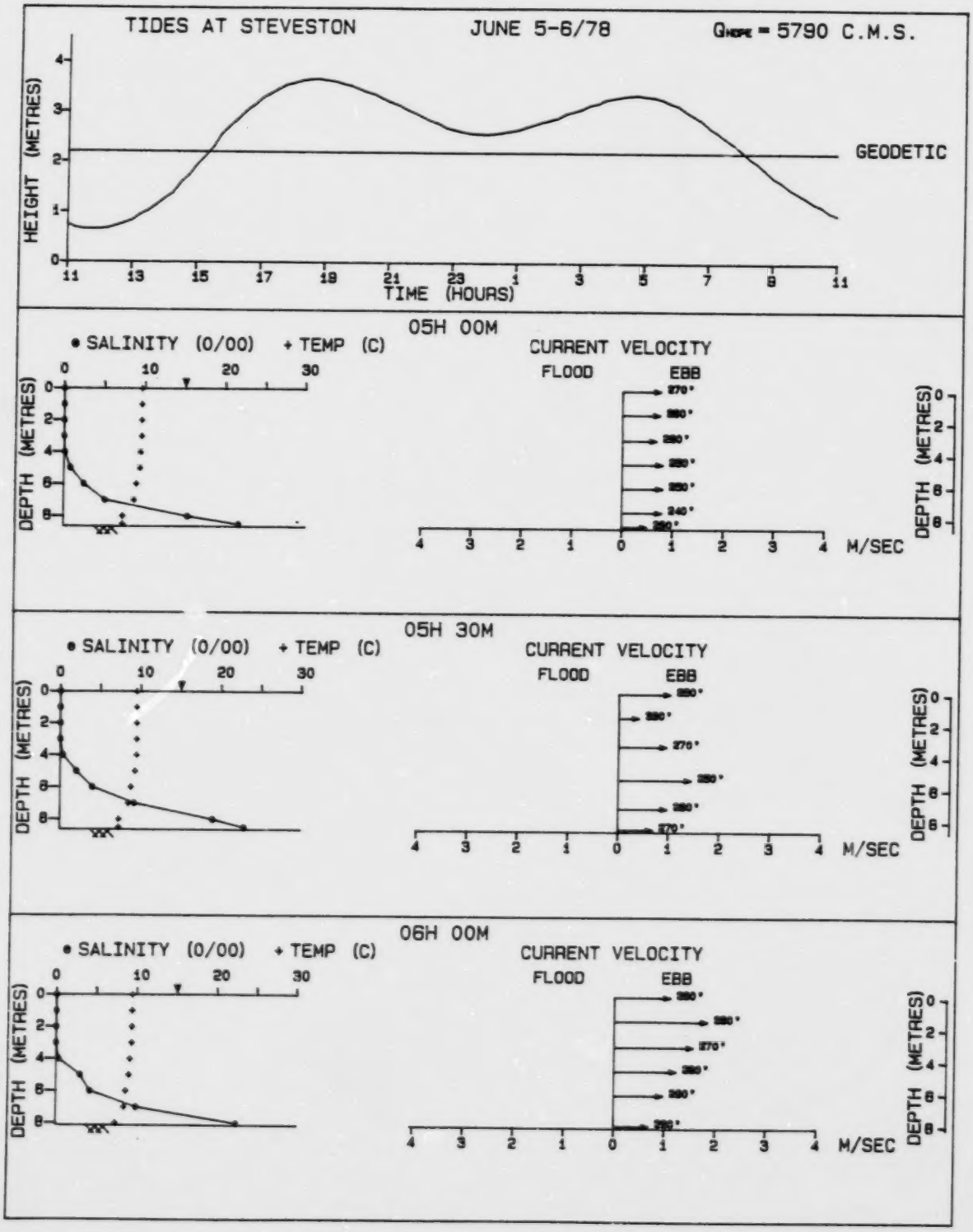
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



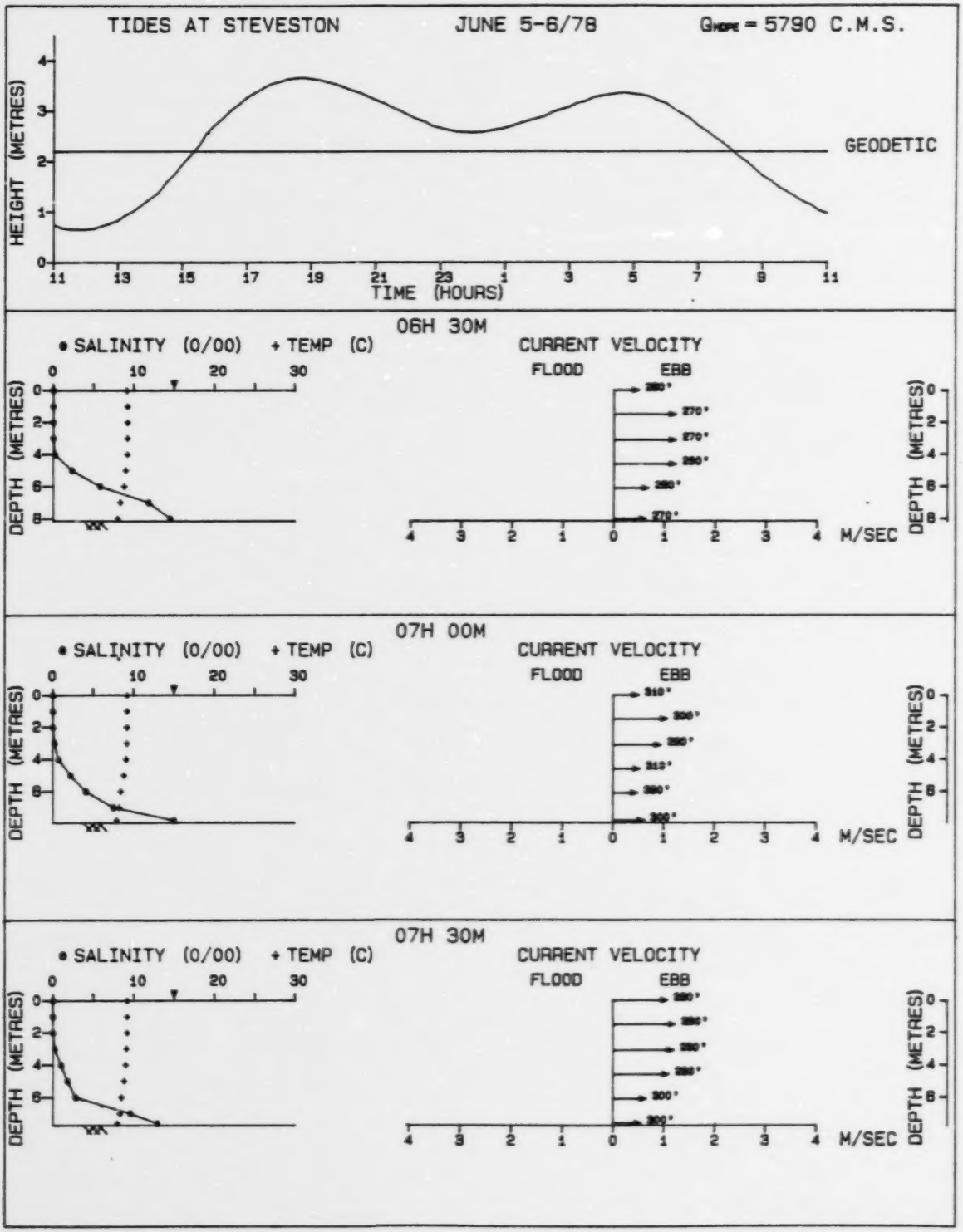
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



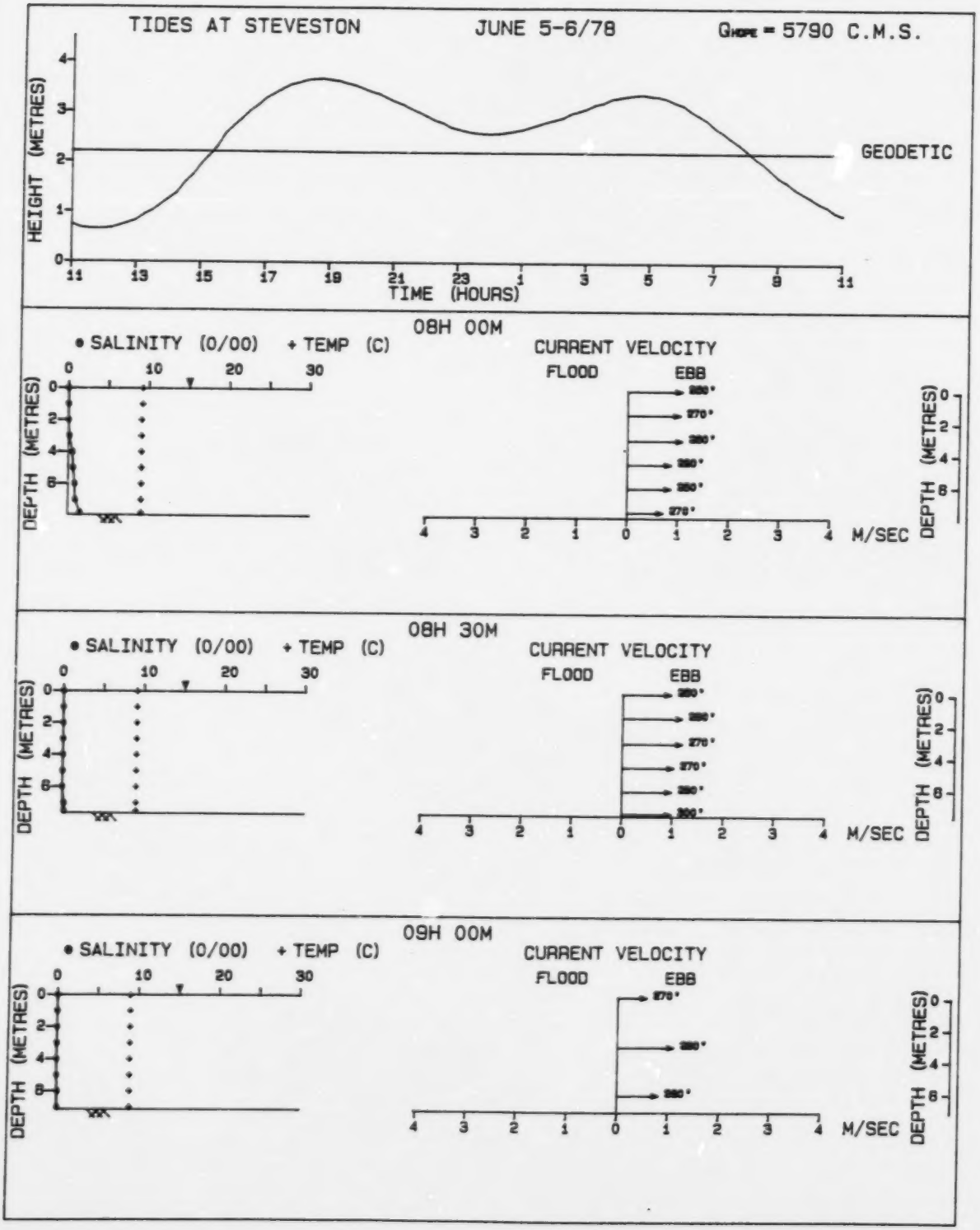
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



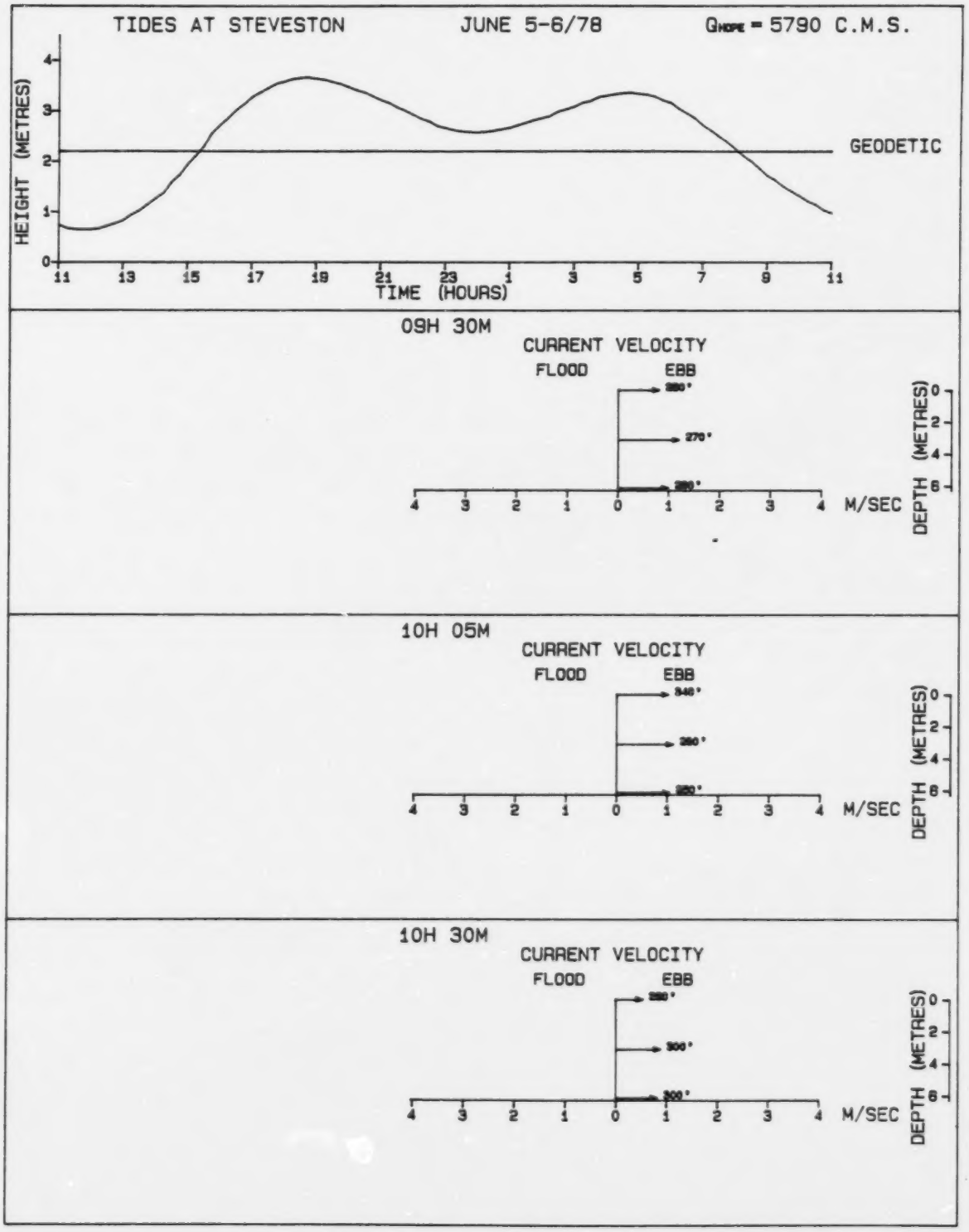
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



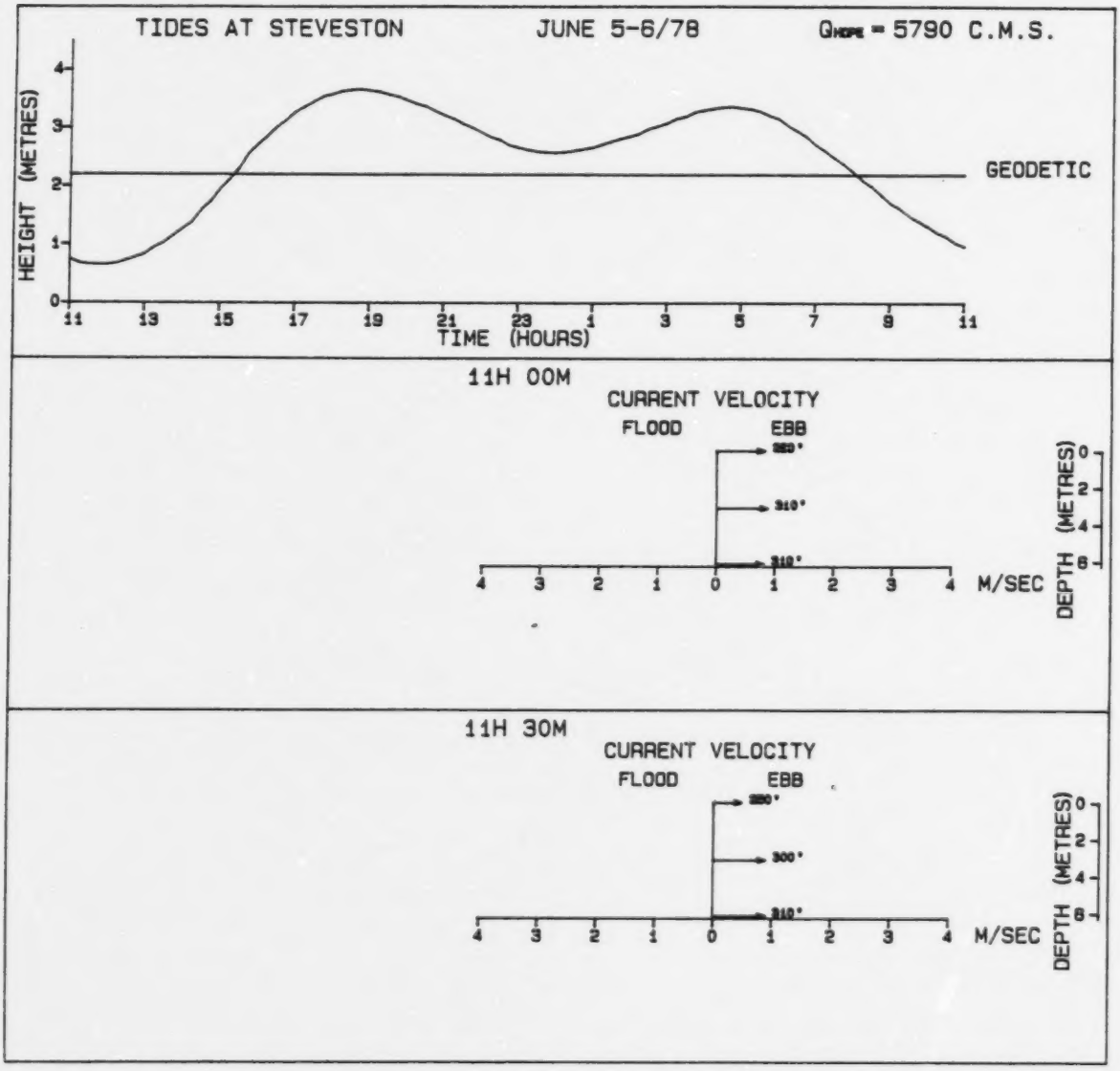
SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



SALINITY, TEMPERATURE, AND CURRENT MEASUREMENTS AT BUOY S21



CURRENT MEASUREMENTS AT STN A, MUSQUEAM SCOW MOORAGE, N. ARM

JAN 23/79 RIVER DISCHARGE AT HOPE = 793 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (0/00)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
11H 15M	0.2			0.15	160	
	1.7			0.46	160	
	3.5			0.24	130	
	5.2			0.34	160	
	7.0			0.34		220
	7.8			0.24	160	
13H 40M	0.2			0.06		280
	1.8			0.12	160	
	3.6			0.06	160	
	5.3			0.06	140	
	7.1			0.00		000
	8.4			0.18		240
15H 45M	0.2			1.04		340
	1.6			0.49		330
	3.2			0.49		340
	4.8			0.61		340
	6.4			0.49		340
	7.2			0.30		310

CURRENT MEASUREMENTS AT STN B, MUSQUEAM SCOW MOORAGE, N. ARM

JAN 23/79 RIVER DISCHARGE AT HOPE = 793 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	DIR (TRUE) EBB
12H 00M	0.0			0.00		000
	1.8			0.30	160	
	3.5			0.37	180	
	5.3			0.24	130	
	7.2			0.18	080	
	8.5			0.18	100	
14H 00M	0.2			0.43		330
	1.8			0.06		340
	3.5			0.06		000
	5.3			0.06	140	
	7.4			0.06	160	
16H 10M	0.2			1.04		340
	2.9			0.85		340
	4.4			0.55		330
	5.8			0.37		320
	6.8			0.30		340

CURRENT MEASUREMENTS AT STN C, MUSQUEAM SCOW MOORAGE, N. ARM

JAN 23/79 RIVER DISCHARGE AT HOPE = 793 CU.M/SEC

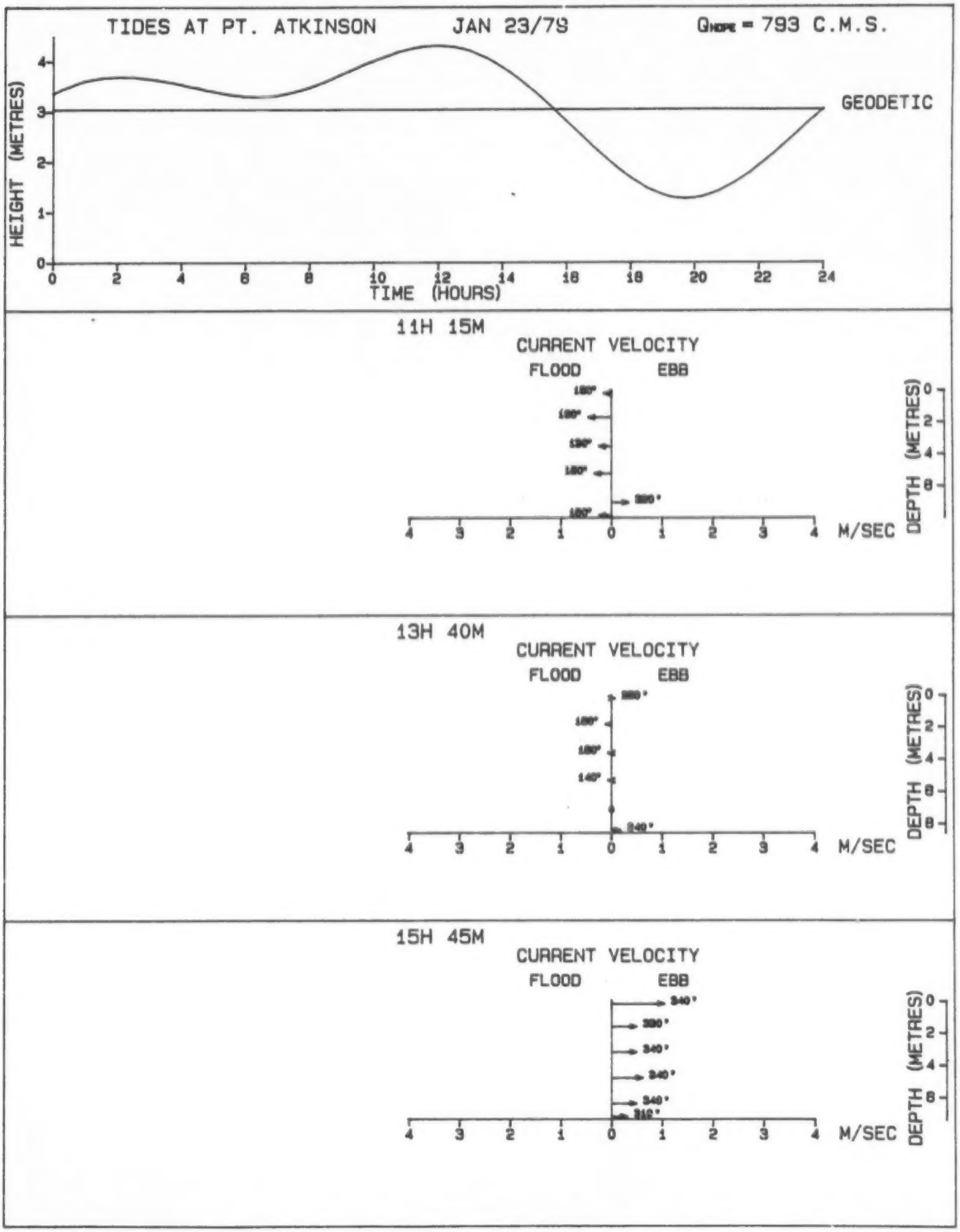
TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
12H 35M	0.0			0.06	070	
	1.7			0.00		000
	3.0			0.06	100	
	5.0			0.06		230
	6.7			0.06		250
	7.5			0.06		280
	8.2			0.18	080	
15H 20M	0.2			0.91		340
	1.5			0.61		330
	3.0			0.67		340
	4.5			0.30		340
	6.1			0.37		320
	6.8			0.34		310

CURRENT MEASUREMENTS AT STN D, MUSQUEAM SCOW MOORAGE, N. ARM

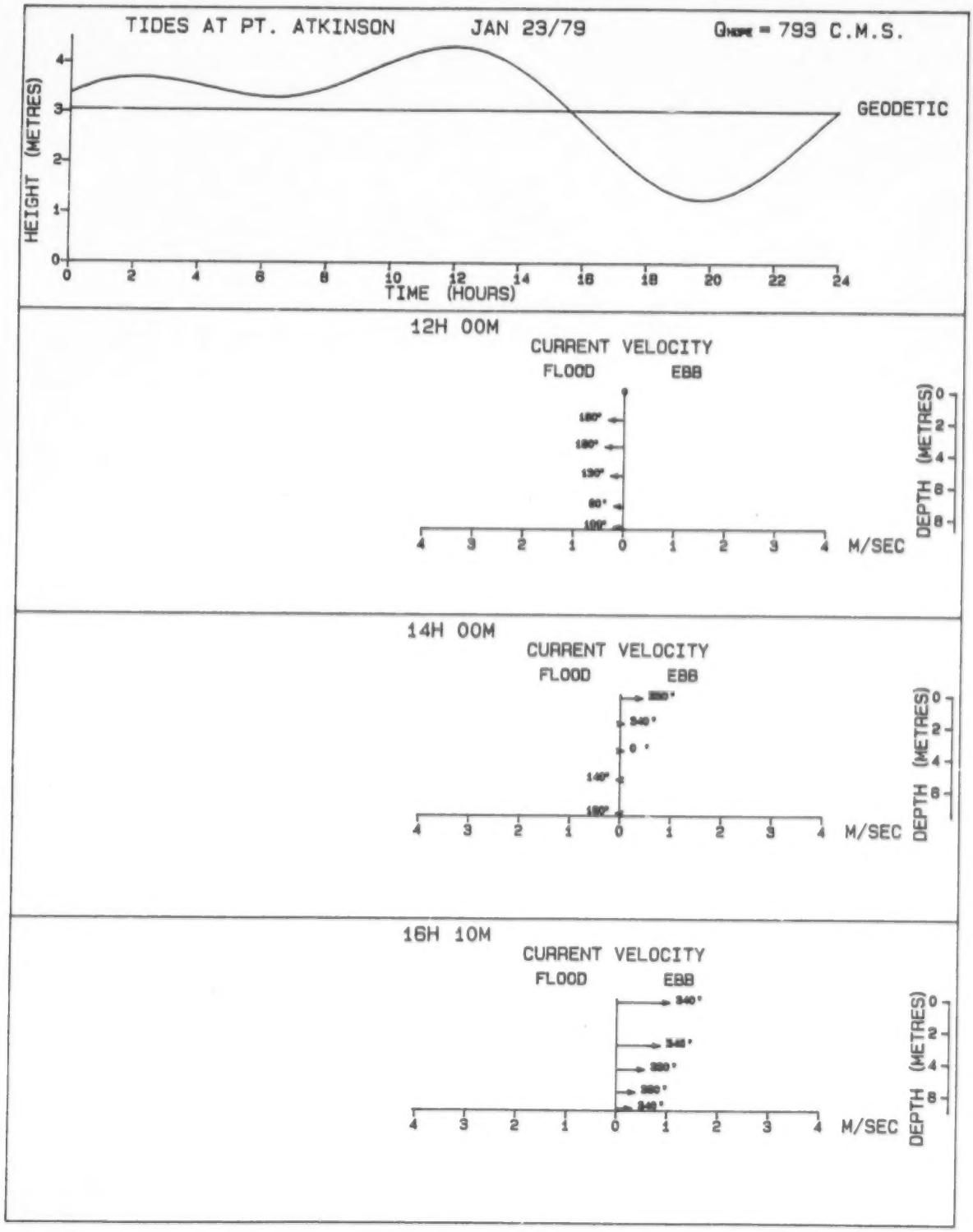
JAN 23/79 RIVER DISCHARGE AT HOPE = 793 CU.M/SEC

TIME (PST)	DEPTH (M)	SALINITY (O/OO)	TEMPERATURE (C)	SPEED (M/S)	DIR (TRUE) FLOOD	EBB
12H 10M	0.0			0.37	070	
	1.7			0.18	120	
	3.4			0.30	110	
	5.1			0.30	100	
	6.8			0.24	130	
	7.5			0.24	160	
	8.3			0.00		000
14H 40M	0.2			0.55		340
	1.6			0.37		340
	3.2			0.18		340
	4.7			0.18		290
	6.3			0.24		340
	7.1			0.12		290
16H 20M	0.2			1.22		***
	1.4			1.22		330
	2.8			1.16		310
	4.1			0.79		340
	5.6			0.55		320
	6.3			0.37		320

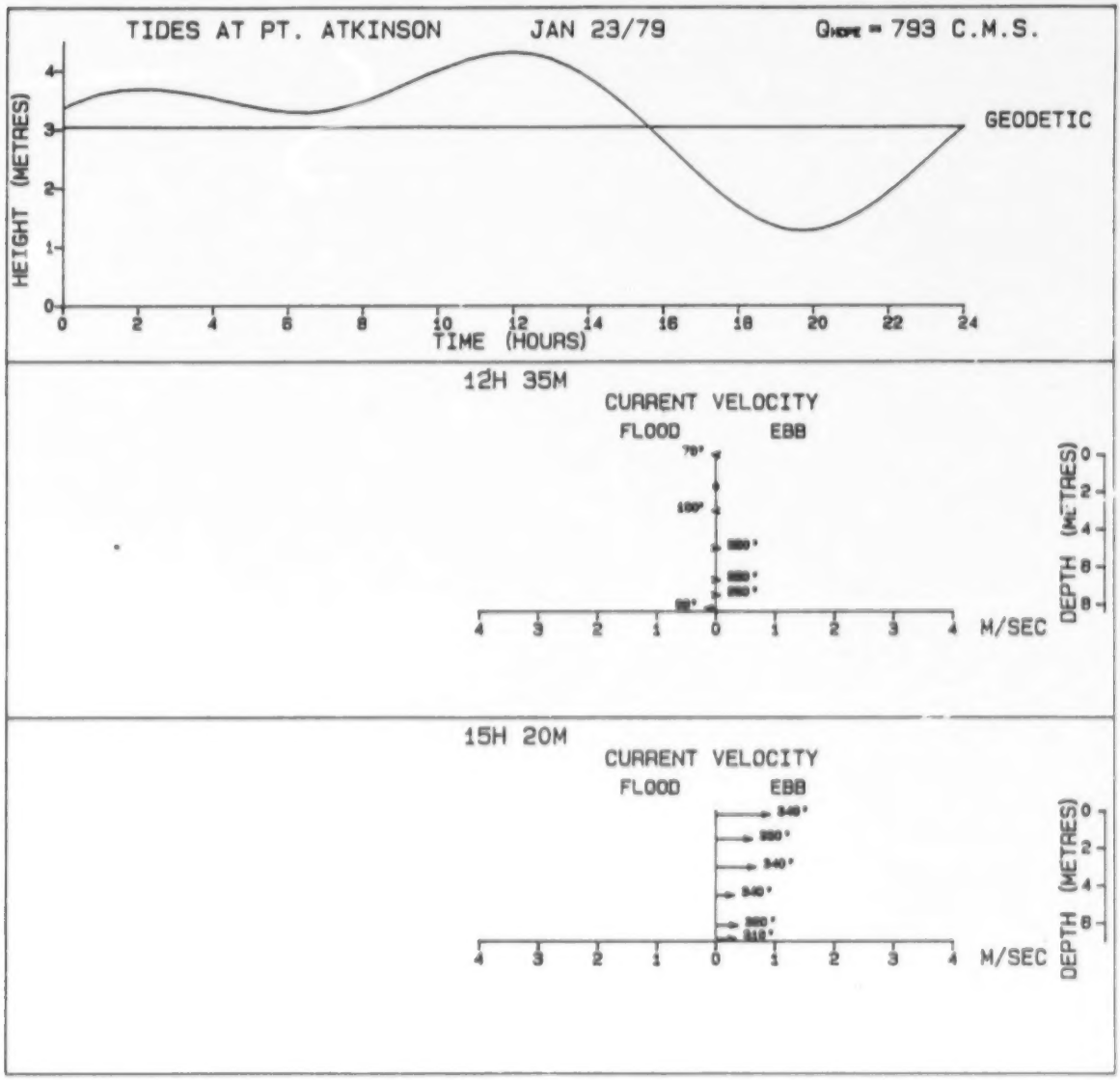
CURRENT MEASUREMENTS AT STN A, MUSQUEAM SCOW MOORAGE, N. ARM



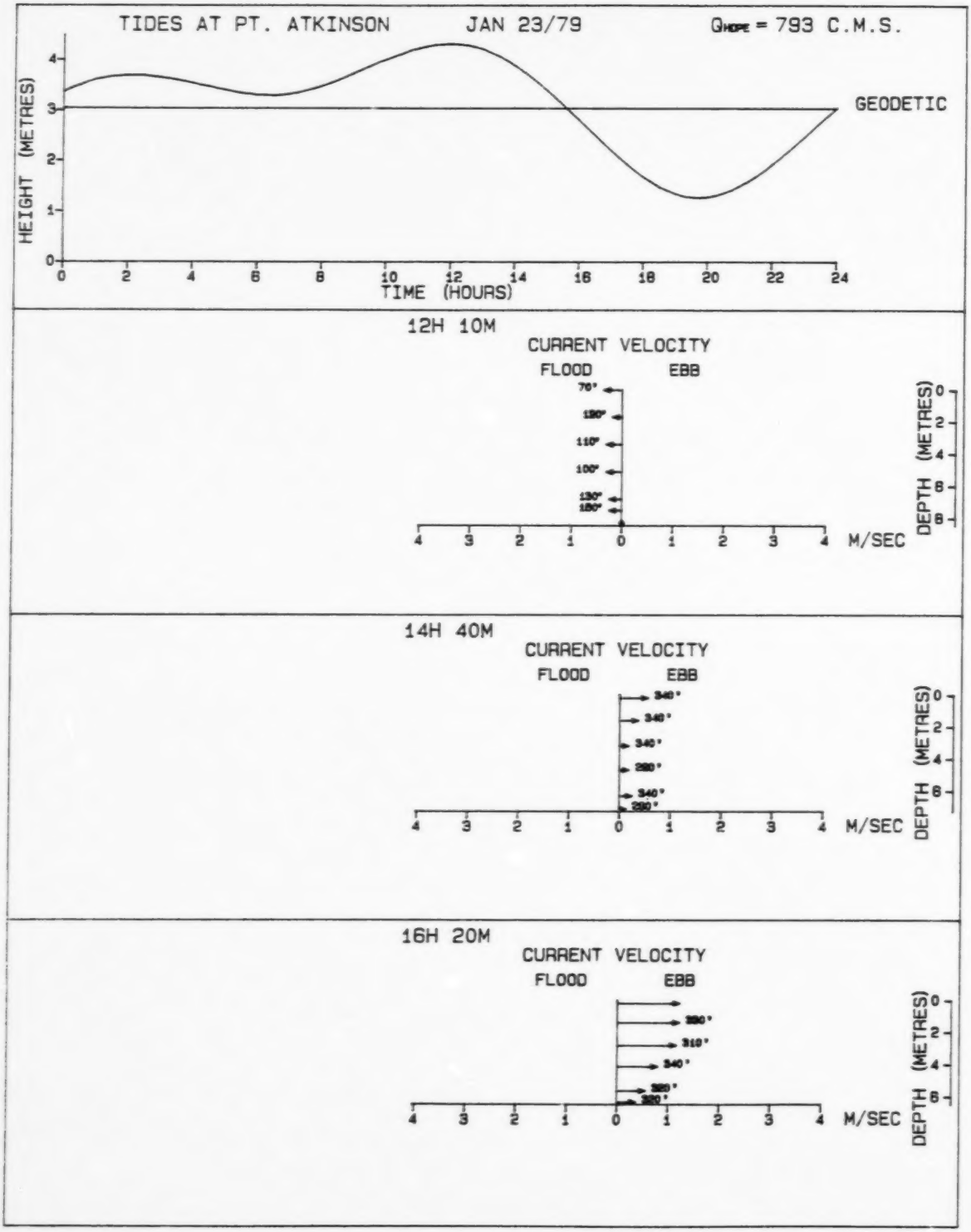
CURRENT MEASUREMENTS AT STN B, MUSQUEAM SCOW MOORAGE, N. ARM



CURRENT MEASUREMENTS AT STN C, MUSQUEAM SCOW MOORAGE, N. ARM



CURRENT MEASUREMENTS AT STN D, MUSQUEAM SCOW MOORAGE, N. ARM



REFERENCES

Ages, A., 1979. The Salinity Intrusion in the Fraser River: Salinity, Temperature and Current Observations, 1976, 1977. Pacific Marine Science Report 79-14.